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The Voice of the On-Site Power Generating Industry



## Under-Investment in the U.S. Electric Power Grid: What it Means to Our Industry

Power Generation  
Market Pulse Report – Fall 2012

A Productive Visit to  
Generator Country

30-Cycle Transfer Switches  
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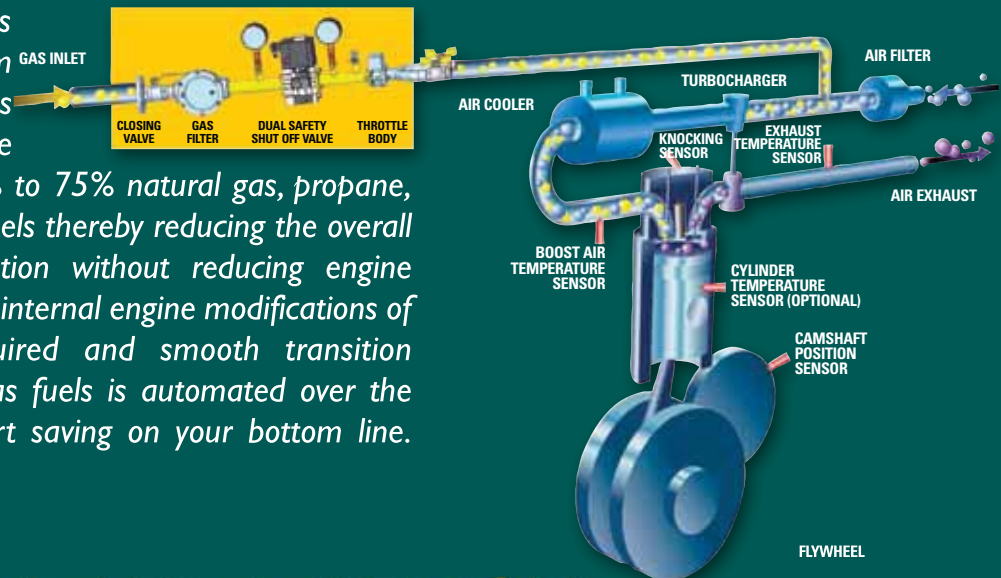


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# EVENTS CALENDAR

## Conferences & Conventions

### NFMT Conference & Expo

March 12-14, 2013; Baltimore, MD

The country's #1 conference and exposition for non-residential building owners; facility managers; maintenance engineers; directors of sustainability; planning; operations and management. EGSA has partnered with NFMT to launch the Power Source Pavilion. The Power Source Pavilion and educational sessions will provide facility professionals with exclusive access to on-site power solutions. For exhibit information, contact EGSA at (561) 750-5575, ext 203 or e-mail Kim Giles at [K.Giles@EGSA.org](mailto:K.Giles@EGSA.org).

### EGSA 2013 Spring Convention

March 17-19, 2013; Sarasota, FL

EGSA's Annual Spring Convention features educational sessions on a broad range of issues impacting today's On-Site Power industry. More information will be available at [www.EGSA.org](http://www.EGSA.org) or by calling (561) 750-5575.

### EGSA 2013 Fall Technical & Marketing Conference

September 15-17, 2013; Seattle (Bellevue), WA

The Fall Technical and Marketing Conference is held during September and is designed to focus on technical and marketing issues. Registration information will be available online at [www.EGSA.org](http://www.EGSA.org) or call (561) 750-5575.

## EGSA 2013 On-Site Power Generation Schools

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### Advanced Schools

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### In Our September/October 2012 Issue...

We would like to take this opportunity to correct two errors that appeared in the "Rules of Engagement for Mission-Critical Standby Generator Operators" article on pages 20-23 in our September/October 2012 issue.

On Page 20 (in the red sidebar) the last word should read "4F-ready" instead of "4i-ready".

On Page 21 (at the bottom of the first column of text) the text reads "Included in the 100 hours of annual allowable equipment exercising are 50 hours of emergency run time operation" should instead read "Included in the 100 hours of annual allowable equipment exercising are 50 hours of non-emergency run time operation."

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Throughout every issue of Powerline, trademark names are used. Rather than place a trademark symbol at every single such occurrence, we aver here that we are using the names in an editorial fashion only. EGSA has no intention of infringing on these trademarks.

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Michael Pope  
2012 EGSA President  
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## Ch, Ch, Changes

Generator sets and tall cranes... I instinctively notice them when I'm traveling. Of course, generator sets are a given. Engines and gensets have been in my life for at least a third of my waking hours since I started working at the age of 17. I can spot an exhaust pipe or silencer from half a mile; I know where to look – the side of a building, on the roof, in a bunker, next to the HVAC unit (why do they do that?). When I am driving with my wife, I'll let her know that the grey box by that building looks like a XYZ brand 500 kW. She slowly raises her eyes to the heavens to gratefully acknowledge this important information. I know many of you understand this; it is our business, our livelihood and we love it!

Perhaps I need to explain the crane thing. As a kid, I had no desire to operate them – or fire trucks either. It is not that I know a lot about cranes – other than the fact some of them use gensets for power. It is more about what they represent. When I get to a city and see tall cranes working, I know it is because money is being invested in building something big. People are working, creating a building that wasn't there before; to provide employment opportunities or housing or shops. Commerce. Things are moving. Changes are happening. And frankly, I like change – well, most, anyway!

Which brings me to EGSA. Your Association makes changes every year. Five years ago, we instigated a three-year term limit for Committee Chairs. Since the Committees are the stepping stone towards Directorship, it is important that these positions open up on a regular basis. Committee Chairs are appointed by the current EGSA President and often the Vice-Chair will get promoted. Once the appointment is confirmed, the new Chair is free to select their choice of officers, the Vice-Chair and Secretary.

There are also major changes to the EGSA leadership annually. Three Directors leave the Board on December 31st of every year and are replaced by three new Directors, and with them come new personalities, ideas and initiatives.

The Executive Board consists of five officers: Secretary/Treasurer, Vice-President, President Elect, President and Immediate Past President. At the end of every year, a new Secretary/Treasurer joins the team and everyone else moves up a notch – except for the Immediate Past President, who retires from the Board. Thus, the Executive Board is a five year commitment for the Member (and his/her employer). Three warm-up years leading to the Presidency, then a cool-down lap!

It is significant that this year's President-Elect, who becomes the 2013 President, is Deb Laurents of Cum-

mins Power Generation; significant for the obvious reason that she will be our first female President.

Over the years, the vast majority of EGSA Presidents have been with manufacturers. Not surprising, perhaps, since the Association was originally the Electrical Generating Set Manufacturer's Association. This is changing: John Kelly Jr. (2011) was the third Distributor President in 46 years. In 2013, there will be two distributors rising through the Executive Board, Vaughn Beasley (Ring Power Corp.) and Bob Hafich (Emergency Systems Service Co.)

The selections for the new Secretary/Treasurer and Board Members are made by the Nominating Committee from Member nominations. The approval process starts with a check of their qualifications: service as a committee officer, regular attendance at conventions, approval of the three-year commitment by the respective employer – five years for the Secretary/Treasurer, etc. The process appears to be working well.

During my Presidency, I have had the pleasure of appointing two new Committee Chairs: International Trade and Membership. The new Directors to the Board and Executive Board were announced at the Fall Convention and elsewhere in this issue. The changes have been made and your Association is in an excellent position to continue our progress and growth in 2013.

Every year these changes in leadership occur at EGSA, ensuring that we do not get too set in our ways and stagnate! If we are to be truly the "Voice of the Power Generation Industry", we need more voices (Members) and we need to be recognized by the Industry as a worthy and vigorous contributor.

### There are other changes occurring "behind the scenes":

- The EGSA Certified Technician's Test is set to be reviewed and revised as necessary to reflect the changes in technology that have occurred since the original test was written.
- The *On-Site Power Generation—A Reference Book* is closer to publication in its 5th Edition form.
- The On-Site Power Generation Schools are being reviewed for subject and content to ensure constant improvement and relevance to those attending the courses.
- E-Learning will be introduced, initially just two courses. 1. An Introduction to EGSA. 2. On-Site Power Generation 101, which will provide a non-technical overview of how electricity is distributed to consumers and an overview of On-Site Power Generation.

*Continued on page 13*



**Bob Breese**  
EGSA Director  
of Education  
[b.breese@EGSA.org](mailto:b.breese@EGSA.org)

## The EGSA Education Update

### Welcome to our New Education Director, Mr. Bob Breese!

EGSA is pleased to announce that Mr. Robert (Bob) Breese of Eagle, Wisconsin has been tapped as the new Director of Education for the trade association. Bob has more than 30 years of experience as it relates to this staff position, most recently working as the lead service trainer and technical writer for Generac Power Systems. In that position, he developed the course curricula for Generac's factory and field service training programs. He has also served as an EGSA Advanced and Basic school instructor for the past three years.

Breese served for 25 years in the U.S. Coast Guard as a naval engineer, then worked as a service program manager for a prime power contractor in Iraq from 2004 to the end of 2005. "My father set the stage for my life when I was 9 years old; he taught me, among many other things, Ohm's Law, how it worked and how to apply it. His patience and example developed in me a love of learning and a passion for helping others to learn and understand. Through the Coast Guard I learned effective principles of instruction and course development. With Generac, I was able to apply those skills and knowledge and help them to build a world-class service training program. Using the current and rapidly evolving communication technology we have today, there are limitless ways to help people learn complex principles quickly. We have to use this technology effectively to share the knowledge and experience so many in our industry have with the younger generations coming into this field. I look forward to working with our Members to do just that with EGSA."

Breese's responsibilities will include directing the association's Educational programs, such as the Basic and Advanced Power Schools, the EGSA Technician Certification Program as well as the David I. Coren Scholarship Program. Breese will also have full responsibility for the eLearning Program as it is developed and implemented. Additionally, Breese will take over this column in Powerline Magazine and will also oversee the publishing of future editions of *On-Site Power Generation: A Reference Book*.

Welcome, Bob!

### Update - Education Program 2013

EGSA is pleased to announce that our Education Programs' School schedules, both Basic and Advanced, have been approved for next year. This is the second year in a row that we will offer six schools! If you have not seen a copy of the EGSA Schools brochure for 2013, make sure to download a copy and review, as classes will fill up fast. The decision to offer six schools was based upon demand. It is important to note that several of the hotels selected for 2013 have been utilized in the past two years and this should also lend to greater efficiencies moving forward.

Please refer to Page 32 for the 2013 dates and locations of EGSA's On-Site Power Generation Schools.

### Instructor Enhancement Initiative

Speaking of efficiencies, in an effort to support our EGSA school instructors, our consultant, Bill Heacock, is offering a two-pronged training program for each EGSA School instructor. The training includes webinar training coupled with the videotaping of each instructor in the field between now and the end of 2013. Feedback will then be provided one-on-one to each instructor by the consultant. The taping process has already begun, with several of our Basic School Instructors being videotaped during our Basic School in Scottsdale, AZ in October. The Instructor Enhancement Program is mandatory for all EGSA school instructors.

### Certification Update

As mentioned last month, EGSA is on target to have a record-breaking year for EGSA Certified Technicians! The biggest news to report from the Fall Conference Tech Certification Committee Meeting (held Sunday, September 9th) is that the Committee is on target to review the certification test and study guide to update both with the latest and greatest technology. Currently, the Committee, chaired by Rob Sweeney of R.L. Kistler, is working with Ferris State University to form and implement this panel. If you or someone you know would be a good fit for this panel, please contact Rob directly at [rsweeney@rlkistler.com](mailto:rsweeney@rlkistler.com) or (585) 464 6316.

We appreciate your continuing support of the EGSA Education Programs! If you have suggestions for, or questions about, the EGSA Education Programs, please contact Bob Breese via e-mail or [b.breese@egsa.org](mailto:b.breese@egsa.org) or by phone at (262) 225-3107. ■



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Herb Whittall  
EGSA Technical Advisor  
HWhittall@comcast.net

## Codes & Standards

For those of you who missed the EGSA Fall Conference in Milwaukee, it was the best attended yet and the content of the speeches and meetings made it very worthwhile.

The Codes and Standards Surveillance Committee has a sub-committee working on a Recommended Practice for Engine Muffler Systems. The sub-committee hopes to have a complete draft ready for the 2013 Spring Convention in Sarasota (March 17-19) and a final edition ready for approval by the Board of Directors at the Fall meeting in Seattle. So, if you want to be involved in the draft of this recommended practice, you need to get on board now.

On August 13th and 14th, 2012 the Technical Committee on Electrical Systems of NFPA (National Fire Protection Association) 99, Health Care Facilities met in San Diego to decide which proposals to accept and which to reject. (NFPA now calls these decisions Revised and Resolved). The chapters we are in charge of are Chapters 4, 6, and 7. As an alternate to Herb Daugherty, I attended as a voting Member in his absence. The votes are now in from that committee. Of the 25 members eligible to vote 22 returned votes. Ten votes were returned against specific items, but only one item received enough "no" votes to have it resolved. Therefore the consensus of the votes was to approve. There were 7 temporary items that referred to Section 517 in the National Electric Code which needed correlation with NFPA 99. All items passed except item #7 which called for adding the Equipment Branch to Section 517.31. There were enough negative votes for this addition by NFPA 99 the consensus felt that this would make the Emergency Power for the Equipment Branch come up to load in 10 seconds, as it must for the Life Safety and Critical Branches. This vote was correct as other places say the Equipment Branch emergency power can come up as needed.

The proposed meeting of the STP for UL 2201 Standard for Portable Generator Sets for the third quarter of this year was postponed until sometime next year. Instead I received a summary of topics for preliminary review concerning UL 2201. These include the following major changes:

- a) Revise definition of Live Part in paragraph 3.9.
- b) Delete definition of Pulsating Direct Current (DC) in paragraph 3.13.
- c) Add requirement for excess-flow and back-pressure check valve in paragraph 8.2.14.

- d) Add paragraph 15.7.7.1 to clarify references to GFCI evaluation and durability test.
- e) Add exceptions to paragraph 15.8.1 for branch circuit-type overcurrent protection devices.
- f) Update reference in paragraph 15.13.1 to investigate controls for engine-generator applications.
- g) Remove reference in paragraph 16.1.8 to Figure 16.1 for bonding conductors.
- h) Eliminate use of ASTM Reference Fuel A, I and IRM 903 oil in Section 18.7.
- i) Add "concrete" to the supporting surface for the GFCI Evaluation and Durability Test in paragraph 26.4.
- j) Reduce required hours and intervals of testing in paragraphs 26.6 and 26.7.
- k) Revise total harmonic distortion limit to 30% and remove Class 1, 2 and 3 circuits in paragraph 36.1.
- l) Remove sprinkler test in Section 44.
- m) Revise Gasket Immersion Test in Section 45.2 to test fluids based on Table 18.1.

I have more detail on each of these items, so if you want more information on any of them, please contact me. Comments are due on these proposals by November 12, 2012, but these proposals will be discussed and voted on by the STP Committee at the meeting next year. So if you have comments on these, please get them Ray Stanko at UL to or to me.

ISO/TC 70/SC 8 which works on ISO 8178 *Reciprocating Internal Combustion Engines – Exhaust Emission Measurement* held its last meeting, September 26th and 27th in Paris. They are starting in 2012 to revise the following Parts: *Part 1: Test bed measurement of gaseous and particulate exhaust emissions. Part 4: Test cycles for different engine applications. Part 5 Test fuels. Part 6: Report of measuring results and tests. Part 7: Engine family determination. Part 8 : Engine group determination and Part 11: Test-bed measurement of gaseous and particulate exhaust emissions under transient conditions.*

Finally, one additional detail, the IEC (International Electrotechnical Commission) announced a new General Secretary. I was under the impression that this standards making organization only had an office in Switzerland, but I see by this announcement that they have an office in Boston as well. ■



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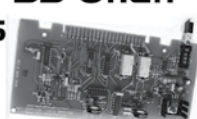


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## FROM THE TOP

Continued from page 7

Anyone that has been attending EGSA conventions for more than five or six years will recognize the huge changes in their quality. The speaker programs, Committee initiatives, the Exhibitor's Showcase and networking have all helped to drive up the attendance. We had record attendance at both conventions in 2012 (Austin and Milwaukee) and we have had a total of more than 130 first timers and new Members join us this year. Most of the new Members in attendance are sure to become regular attendees in the future having seen first-hand the benefits of joining the On-Site Power Generation Industry during its meetings.

Have you noticed the changes to *Powerline* over the last two years? Jalane Kellough and the staff have kicked it up to a new level of professionalism. The size, quality, content and graphics have made *Powerline* a publication to be proud of. You can always get extra copies and I would encourage you to get them into as many hands as possible – both within and outside your organization. Subscription is free and everyone in the Industry should be getting their bi-monthly copy. Speaking of free copies, EGSA is also looking to extend our readership into facility managers and consulting & specifying engineers. If you would like to provide a free copy to a client or prospect, EGSA staff stands ready to make this occur. Let's not forget, *Powerline* is about the best way to reach the On-Site Power Generation Industry, if you have a message for it.


EGSA has also revised the way it communicates. You don't get much surface mail from us now; you get email notices and LinkedIn alerts. Many of our Committees are communicating with their Members through this platform with great result. We can also be found on Facebook.

To paraphrase: This is not your grandfather's EGSA!

Curiously, I didn't see any large cranes or any generator sets in Milwaukee during our Conference in September. The cranes had moved on after finishing the beautiful Riverwalk area and the gensets must have been really well hidden?

On a personal note, there will be a change in authorship in the next "From the Top" article as Deb Laurents takes the reins. I have really enjoyed the opportunity of sharing some thoughts with you during this past year. As I prepare for my transition to Immediate Past President, I will share the fact that it has been a huge honor to represent this great organization as President. My sincere thanks go to the EGSA staff, fellow Board Members and many other members for their help, support and friendship. 2012 has truly been a great and memorable year for me.

Cheers,



Michael Pope  
2012 EGSA President ■



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# Power Generation Market Pulse Report – Fall 2012

By Katie Evans, Diesel & Gas Turbine Publications, Inc.

## Report Objective

The EGSA Market Trends Committee annually surveys the EGSA Membership on how their business is performing and their power generation market opinions.

Survey results are intended to provide member companies with a “pulse” or sense of the On-Site Power Industry at-large and an opportunity to compare their impressions with other EGSA Member companies. Survey results are neither designed, nor intended, to include or provide price sensitive or competitive data.

## Survey Methodology

An email invitation to participate was sent to more than 2000 primary and secondary contacts at EGSA Member companies for whom email addresses are on file. As an incentive to participate, EGSA offered those who completed the survey a chance to win a \$200 gift card. The winner was chosen by random drawing from those EGSA members who completed the survey by August 15, 2012 and included contact information.

## Survey Results and Conclusions

A copy of each question along with a chart or graph illustrating the distribution of responses may be found in the pages following. Pertinent comments and Committee observations concerning each question's results also are included.

The 74 survey respondents represented a wide cross section of the EGSA Membership. Survey responses displayed a good distribution of the data. For reference and without comment, data from 2011 is represented by orange bars on the charts. Questions 12-14 were not included in the 2011 survey so there is no comparative data.

### The Committee Drew a Number of Conclusions from the Survey, including:

- EGSA Members expect the 2012 power generation market to finish above 2011 levels. Fifty-one of 74 respondents or 69 percent reported growth in 2012 year-to-date power generation related

sales over 2011; Fifteen respondents or 20 percent indicated relatively flat sales in 2012 year-to-date; and eight respondents indicated sales in 2012 have declined from 2011 levels.

- More than 76 percent of survey respondents anticipate growth in 2013 power generation-related sales compared to 2012; an additional 22 percent anticipate relatively flat sales with only 3 percent forecasting declining sales.
- Employee staffing levels over the past 6 months reflect a relatively flat market amongst EGSA Member companies. Almost half (47 percent) reported relatively no change in staffing levels over the past 6 months; 46 percent reported increases in employee numbers; 7 percent respondents indicated employee reductions.
- Eighty percent of respondents indicated anticipated employee growth over the next 12 months to remain relatively flat to plus/minus 10 percent.
- Key market segments for EGSA Members participating in the survey as reflected by those with a high percentage of importance ranking of 1, 2, 3 included: Data Center, Other Commercial Facilities, Oil & Gas and Healthcare.
- The outlook for 2013 includes continued shift towards a greater percentage of sales attributed to Tier 4 (Interim or Final) product. In 2012, 54 percent of respondents indicated that Tier 4 (Interim or Final) product will account for greater than 10 percent of power generation related sales; in 2013 this same figure is expected to increase, with 62 percent of respondents expecting Tier 4 (Interim or Final) product accounting for greater than 10 percent of power generation related sales.
- Approximately half of respondents to questions about RICE NESHAP either selected “Do Not Know” or “Not Applicable”. Of the other thirty-seven responses, the numbers relating to the percentage of affected customers who

## The Market Trends Committee

Chaired by Kyle Tingle of John Deere Power Systems, the Market Trends Committee provides EGSA with a forum in which market trends and other market data closely related to the power generation industry may be discussed in a way that benefits the Association and its members.

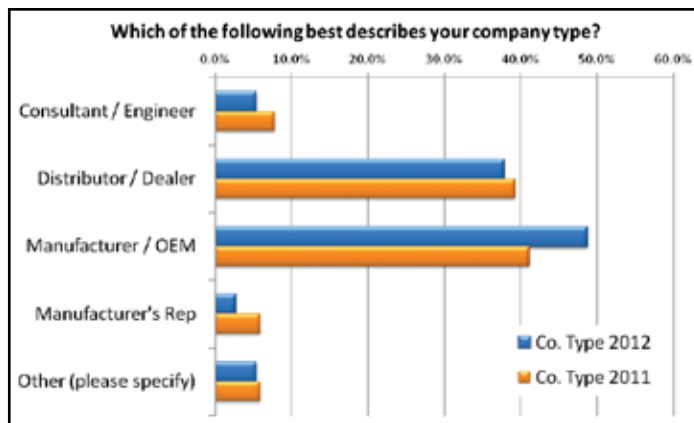
Beyond discussion, the Committee has the responsibility and ability to develop and make recommendations to the Board of Directors regarding programs and methods for the compilation of statistical information. The Committee focuses on complete power generation packages as well as component level trends to enhance the Association's market knowledge of trade, product sales, growth rate, emerging technologies, economic trends, market forecasts and other statistical data in an effort to assist Association members in accomplishing their objectives.

The Committee recently offered all EGSA Members an opportunity to participate in the 2012 Power Generation Market Survey to gauge members' impressions concerning current business conditions relating to the genset industry. As a courtesy to our members, EGSA has produced this summary of the survey results. For more information about the survey or the Market Trends Committee, contact Kyle Tingle at [TingleKyleJ@johndeere.com](mailto:TingleKyleJ@johndeere.com).

EGSA does not require any respondent to provide proof of income, sales volume or company size via supporting data or third party verification.

EGSA makes no claims regarding the statistical accuracy of the survey's results as they relate to current or future real-world economic conditions. EGSA makes no claims or recommendations concerning the use of this survey's results for marketing or sales projections. As designed and conducted, this survey is strictly intended to gauge impressions concerning company performance as well as current and short-term future market conditions across the entire range of EGSA Membership.

were aware or who have been quoted solutions was fairly evenly divided. Responding to a question regarding Purchase, 38 percent of the 37 respondents report that only 1 to 5 percent of their affected customers have purchased RICE NESHAP Solutions.



## MARKET PULSE SURVEY

### Question 1 - Company Type

Eighty-six percent of survey respondents were represented as Distributor/Dealer or Manufacturer/OEM companies.

The total number of survey respondents was 74.

Four respondents indicated "Other"

Other (as specified)

Sales Manager

Control & Auxiliaries Manufacturer

Service Company

Power Generation training facility

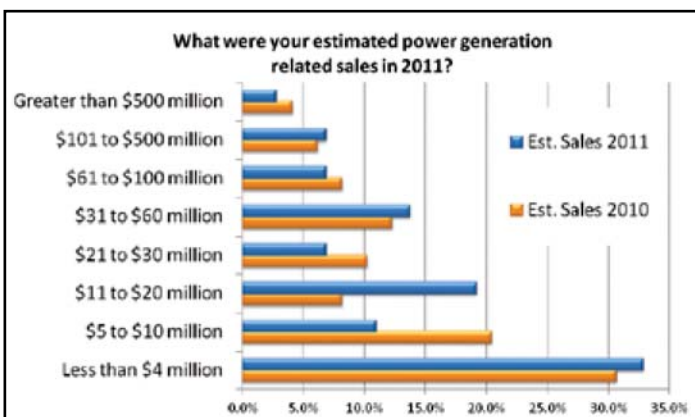
### Question 2 - Respondent Position

Eighty percent of survey respondents were in executive management positions or sales/marketing.

18 of 74 respondents (24 percent) were in a sales related position.

14 of 74 respondents (18 percent) were in marketing.

One respondent indicated "Other" and identified position as "Department Head".



### Question 3 - Sales in 2011

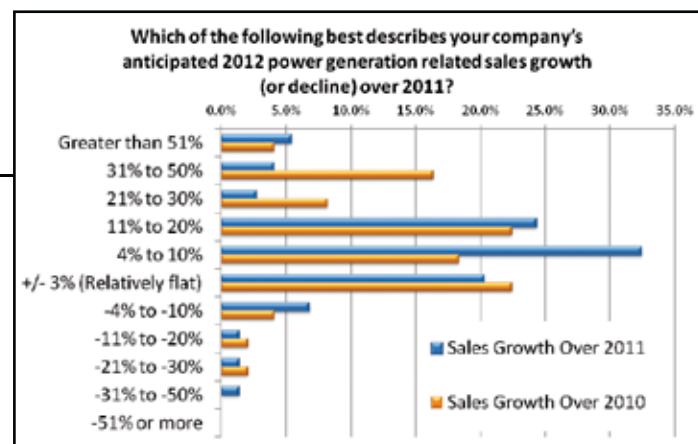
Forty-four percent of respondents reported they had less than \$10 million in power generation related sales in 2011 with 33 percent of the total reporting in the lowest category of less than \$4 million.

### Question 4 - Anticipated 2012 Sales

A total of 51 of 74 respondents (69 percent) reported growth in 2012 year-to-date power generation related sales over 2011.

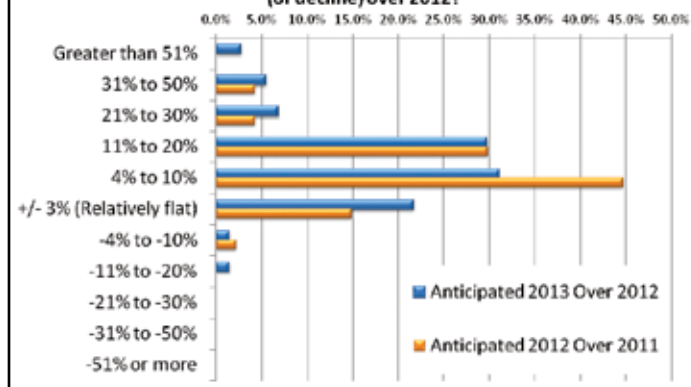
A total of 15 respondents (20 percent) reported relatively flat sales in 2012 year-to-date in comparison to 2011.

Eight respondents (11 percent) indicated sales in 2012 have declined from 2011 levels.





**Which of the following best describes your company's anticipated 2013 power generation related sales growth (or decline) over 2012?**

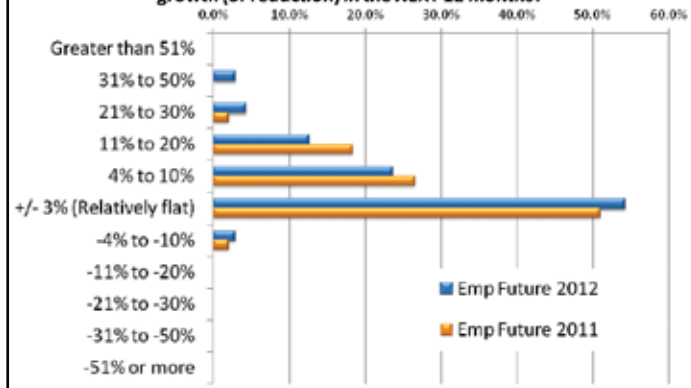


### Question 6 - Past Employment

Thirty-Three (46 percent) respondents reported employee increases with 34 (47 percent) report relatively flat employee growth over the past 6 months.

Five (7%) of respondents reported employee reductions.

**Which of the following best describes your company's employee growth (or reduction) in the NEXT 12 months?**



### Question 8 - Key Market Segments

The market importance level indicates where EGSA members focus their engineering, sales and marketing efforts. Please note that these levels are "of the moment" and do not necessarily indicate a company's ongoing or future marketing strategy.

Key market segments for EGSA members participating in the survey as reflected by an importance ranking in the "Top" category of 1, 2, 3 included Data Center, Other Commercial Facilities, Oil & Gas and Healthcare.

In 2011, survey results anticipated that Commercial, Rental and Data Centers would be most important.

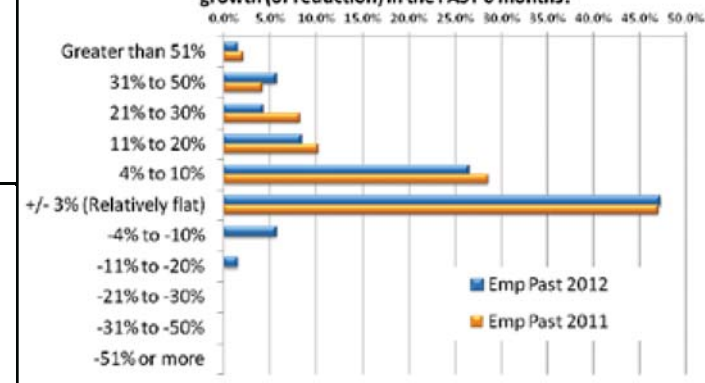
### Question 5 - Sales 2013 over 2012

A total of 56 respondents or 76% anticipate growth in 2013 sales levels.

A total of 16 respondents or 22% anticipate relatively flat sales in 2013 in comparison to 2012.

Only 2 respondents anticipate sales in 2013 to decline in the range of -4% to -10%.

**Which of the following best describes your company's employee growth (or reduction) in the PAST 6 months?**



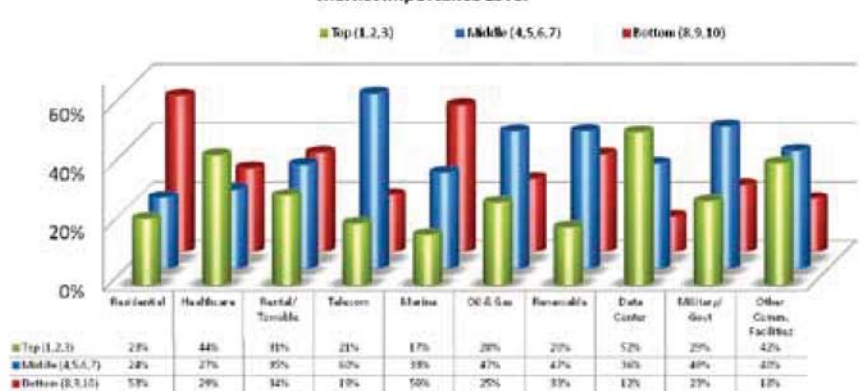
### Question 7 - Future Employment

Fifty-seven respondents (80 percent) reported plans to remain flat or a  $\pm 10$  percent change in the number of employees in the next 12 months.

Please rank the following markets 1 to 10 in the order of their importance to your company with "1" being the most important and "10" being the least important.

	1	2	3	4	5	6	7	8	9	10	Response Count
Residential	5	2	7	6	3	3	3	6	5	22	62
Healthcare	9	11	8	5	2	4	6	7	9	2	63
Rental/Towable	6	6	7	4	9	3	6	14	3	4	62
Telecom	4	4	5	11	11	9	6	4	4	4	62
Marine	4	4	3	9	1	3	8	4	12	16	64
Oil & Gas	7	6	5	7	12	6	5	9	3	4	64
Renewable	2	3	8	4	9	8	10	7	12	3	66
Data Center	14	16	5	6	3	10	5	2	5	1	67
Military/Govt	5	9	6	6	7	12	9	5	6	5	70
Other Comm. Facilities	11	6	13	7	9	7	6	5	4	4	72
answered question											72
skipped question											2

### Market Importance Level



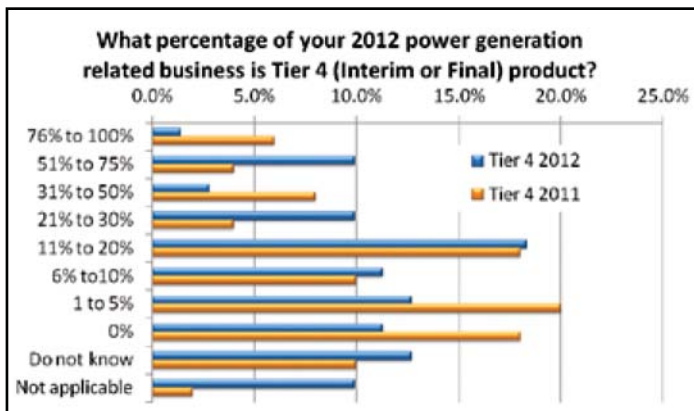
## MARKET PULSE SURVEY

### Question 9 - Market Segment Outlook

The outlook for 2013 by market segment reveals a close correlation to the market segments that were of top importance. The following are the percentage of total responses, by market segment, indicating a positive outlook for 2013 (in descending order):

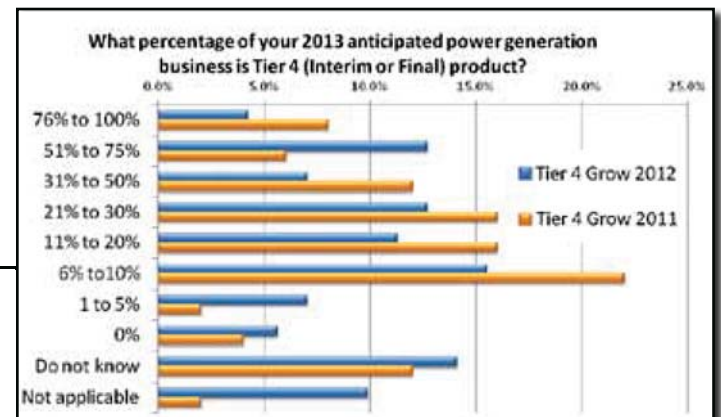
Data Center	57 percent
Other Comm. Facilities	55 percent
Oil & Gas	54 percent
Healthcare	48 percent
Rental/Towable	46 percent
Telecom	45 percent
Military/Govt.	44 percent
Renewable	34 percent
Marine	32 percent
Residential	21 percent

Please indicate your company's estimated 2013 power generation sales growth (or decline) over 2012.														Response Count
	Greater Than 50%	31% to 50%	21% to 30%	11% to 20%	4% to 10%	+/-3%	-4% to -10%	-11% to -20%	-21% to -30%	-31% to -50%	-51% or worse	N/A		
Residential	2	0	0	7	5	35	0	1	1	0	0	17	68	
Healthcare	0	1	3	7	21	24	4	0	0	0	0	7	67	
Rental/Towable	1	1	4	12	13	25	5	0	0	0	0	7	68	
Telecom	1	2	3	5	19	24	4	0	1	0	0	8	67	
Marine	0	0	2	4	16	25	2	2	0	0	0	17	68	
Oil & Gas	3	2	3	15	13	21	0	0	0	0	0	10	67	
Renewable	0	2	3	2	16	28	4	0	0	0	0	12	67	
Data Center	1	4	3	12	18	19	1	3	0	0	0	6	67	
Military/Govt	1	2	0	8	19	28	5	1	0	0	0	4	68	
Other Comm. Facilities	1	3	3	8	22	22	2	1	0	0	0	5	67	
answered question													68	
skipped question													6	



### Question 10 - Tier 4 Related Business

Considering only responses other than "Not applicable" and "Do Not Know", 30 of 55 (54 percent) indicated that Tier 4 (Interim or Final) product accounted for up to 20 percent of their 2012 power generation business year-to-date.

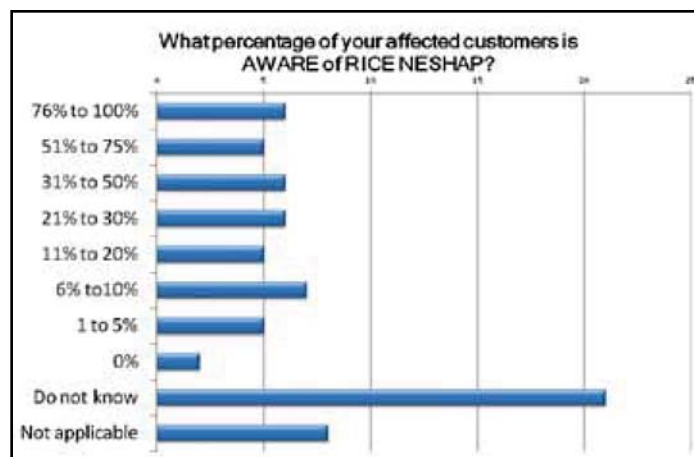


### Question 11 - Anticipated Tier 4 Sales

Again, considering only responses other than "Not applicable" and "Do Not Know", the outlook for 2013 indicates an expected shift towards a greater percentage of sales attributed to Tier 4 (Interim or Final) product.

While 31 percent of respondents reported 2012 sales of Tier 4 (Interim or Final) product to account for more than 20 percent of sales, this figure edges up to 47 percent expecting Tier 4 to account for more than 20 percent of 2013 power generation sales.

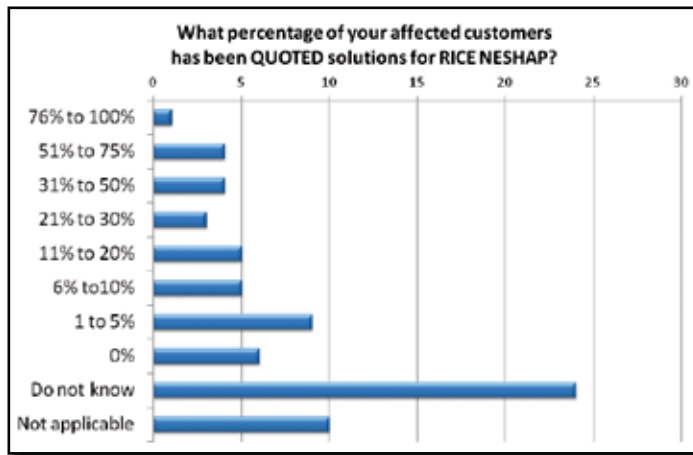
For 2013, sixty-two percent of respondents believe that Tier 4 (Interim or Final) product will account for greater than 10 percent of power generation related sales.



### Question 12 - RICE NESHP Awareness

More than half of respondents to questions about RICE NESHP either selected "Do Not Know" or "Not Applicable". Of the other thirty-seven responses, the numbers relating to the percentage of affected customers who were aware or who have been quoted solutions was fairly evenly divided.



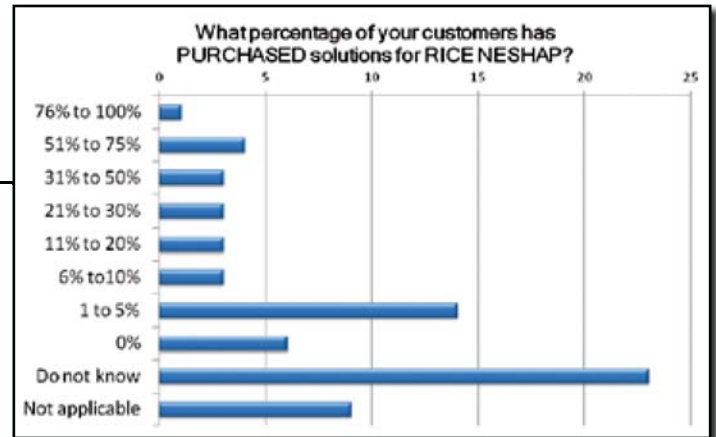


### Question 13

More than half of respondents to questions about RICE NESHAP either selected "Do Not Know" or "Not Applicable". Of the other thirty-seven responses, the numbers relating to the percentage of affected customers who were aware or who have been quoted solutions was fairly evenly divided.

### Question 14

Thirty-eight percent of the 37 respondents report that only 1 to 5 percent of their affected customers have PURCHASED RICE NESHAP Solutions.



### Question 15

**Additional comments regarding the power generation market?** (Unedited comments by survey respondents.)

1. Certainly see plenty of opportunity with gas and all kinds at that.
2. Excellent growth in the rental market in 2012. But overall market appears to be slowing down and forecasts for 2013 not promising.
3. Not sure RICE NESHAP applies in Canada.
4. We are looking at a lot of retro-fit business and less new Generator purchases because of the Tier Requirements.
5. If only the DEP, NERC and FERC (and the CPUC) would realize the untapped peaking power potential of all the reciprocating generation on the ground, and unrestrict its use, we would not have a peak demand issue in the USA.
6. Gas becoming more important.
7. We train in the production of power for rural Alaska. Probably 75 percent of the operators in Alaska rural areas are our graduates. Some of the questions are not truly applicable to our situation.
8. It appears a slowdown may be coming in 2013 but I hope it's just a short dip.

\* Two comments deleted by editor for non-relevant content.

- Problem with function of Q9
- Assurance of confidentiality



# A Productive Visit to GENERATOR COUNTRY

## EGSA Hosts Our Most Successful Conference To-Date in Milwaukee, WI!



2012 EGSA President  
Michael Pope

A little over three years ago, our EGSA Board of Directors made the strategic decision to investigate Milwaukee, Wisconsin as the host city for the 47th annual EGSA Fall Technical & Marketing Conference. They were not wrong! For the few who determine whether or not to attend a conference based on an exotic location, we probably did not see you there but, for those who joined us in "Generator Country," what a record-breaking and stellar event we had!

To set the stage, EGSA promised all things Milwaukee. From our Conference theme, "Brewing a Better Business," to the cuisine, our entertainment...even our speaker program, EGSA delivered one for the books. With a record number of attendees, well over 300 Members, we really made the most of our time in "Generator Country."

Our theme for the event was "Brewing a Better Business." This was not only a tip of the hat to our host city, but also tied to the educational program tracks presented



Our emcee,  
Ed Murphy welcomes attendees to Wisconsin, the cheese capital of the world!



The Hyatt Regency Milwaukee hosted this year's EGSA Fall Technical & Marketing Conference.

on Monday and Tuesday. Our Communications and Conventions Committee really delivered a power-packed speaker line-up, with three of the six speakers coming directly from the local area.

The EGSA First Timer/New Member Reception took on a life of its own in Milwaukee, with a record setting 81 new folks joining us. It was exciting to host a reception where the new EGSA Members and First Timers outnumbered the Board of Directors,

Past Presidents and EGSA staff!

Directly following, all event attendees were invited to join us for the official event kick-off at the **President's Reception (sponsored by John Deere Power Systems)**. This reception is typically held on Sunday evening to allow our Members enough time to check in and join their colleagues for an informal party with local cuisine and cocktails. Due to attendance figures, we



11 new Member firms sent representatives to Milwaukee for EGSA's annual Fall Conference.



A record of 81 First-Time attendees joined us for their first EGSA Event.





Keynote speaker,  
Ross Shafer



Speaker,  
Noah Rickun



Aaron Jagdfeld, CEO,  
Generac Power Systems

moved the party to the Atrium of the Hyatt Regency Milwaukee in order to accommodate our numbers!

Keynote speaker, **Ross Shafer** provided an in-depth look at taking personal responsibility (and being accountable) for what happens in your professional and personal life with a great presentation called, "Success is Your Own Fault." His real-life examples of what happens to the brands that don't stay relevant was also eye-opening!

Next, we took it over to the sales side of the aisle with a presentation by Milwaukee-native, **Noah Rickun**. Noah discussed the important sales concepts for brewing a better business, with a little humor tossed in for good measure! His presentation was prepared as if we were mastering a recipe that makes up personal success. He also presented several ways to hone your "Yes" attitude!

Speaking of saying "yes," EGSA audiences on Monday and Tuesday were treated to presentations made by four of our Members in Milwaukee, two from the immediate local area and that's not all! A couple of our presenters have even committed to articles in subsequent Powerline issues! Our special thanks go to the following EGSA Members who presented dynamic educational sessions during the Fall Conference:

- **Larry Bryce, P.E.**, President, Kohler Power Systems
- **Aaron Jagdfeld**, CEO, Generac Power Systems
- **Brad Norburg**, Rental Sales Account Manager, Ring Power Corporation
- **Jim O'Rourke**, Director of Power Generation Sales, Cummins NPower, LLC

Our Committee Meetings, held on Monday afternoon, were a big success, with several having attendees in the 50s range. The Distributor Dealer Meeting was described by one attendee as a "conference inside of a conference," providing great value to all that attended the nine Committee Meetings and two sub-committee meetings.

Committee Meeting presentations were a big draw in Milwaukee too, ranging from topics like Tier 4, RICE NESHAP, Service Contract Agreements, the EGSA Tech of the Year to name a few. Each Committee has a Board Liaison that reported back to the EGSA Board of Directors with action items and/or follow up that is required.

The EGSA Awards Banquet & Reception was the highlight of the event, hosted by **Kickham Boiler** and **Clariant Corp. (formerly Sud-Chemie)**. Our Milwaukee-native entertainment, the Love Monkeys, had our Members dancing to classic favorites, enjoying the festive evening and experiencing a new twist

on making musical requests with a game we called "Stump the Band." **Tramont**, one of several of our "local" EGSA Members sponsored this wonderful entertainment.

The EGSA Fall Technical & Marketing Conference also hit a new record in sponsorship sales at this event. Here are some of the great occasions where our members brought additional value and fun to the EGSA table:

- **Doosan**, our Platinum sponsor in 2012, provided each attendee with a USB Drive complete with materials important to EGSA Members. Not only was this a great way to provide Conference Materials to each person, but it ended up being a great way to distribute EGSA collateral such as the updated EGSA Member logo and 2013 Powerline Magazine Media Kit!
- Both **ComRent International** and **OMNIMETRIX, LLC** provided our audiences on Monday and Tuesday with added incentive to stay put during the educational tracks by providing 3rd generation iPad giveaways.
- **DEIF, Inc.** and **Kohler Power Systems** each sponsored a hearty event breakfast in Milwaukee, complete with sausage from the Milwaukee staple, Usinger's!
- On September 11th, **United Alloy, Inc.** sponsored a 9/11 tribute that included American flag and EGSA pins respectively. Bells chimed during our moment of silence to pay tribute to those who lost their lives during the national tragedy 11 years ago.

Several Members contributed to keeping attendees organized during the three-day event:

- **Generac** sponsored new registration bags for Fall;
- **Prichard Brown, LLC** sponsored our "Event at a Glance" signage;
- **FW Murphy** sponsored event banners on the Fall event micro-website;
- **Altronic** sponsored the attendee portfolio organizers; and
- **Power Systems Research** sponsored the "green" water containers.

New for an EGSA event, **L3 Westwood** sponsored a unique badge holder and neck lanyard in Milwaukee that provided our Members with an additional "pocket" while traversing the Hyatt several times a day!

Also new this Fall, **ASCO Power Technologies** hosted the EGSA Closing Reception where our conference formally concluded with festive and blinking pilsner glasses as another wink to our host city!



Larry Bryce, P.E., President,  
Kohler Power Systems



Jim O'Rourke, Director of  
Power Generation Sales,  
Cummins NPower, LLC



Brad Norburg, Rental Sales  
Account Manager,  
Ring Power Corporation



Speaking of closing ceremonies, the EGSA Fishing Tournament was extremely competitive this year, with Members catching really large freshwater trout and salmon! Our title sponsor for the tournament, **HOTSTART**, upped the ante during the tournament by providing some “reely” great customized EGSA fishing hats! Other sponsors of the Fishing Tournament included:

Fishing Trophies – **Phoenix Products**

Fishing Teeshirts – **Ring Power Corp.**

Fishing & Golf insulated lunch totes – **Girtz Industries**

**Doosan**, our Golf Tournament title sponsor, secured a wonderful Hole-In-One prize. Our insiders reported back that one EGSA golfer was just a few yards shy of winning the foursome vacation to St. Andrews Golf Course in Scotland!

(Sorry Armand, we hope you win next time).



EGSA staff coordinated a third option in Milwaukee with a 1.4 mile walking food tour that incorporated 5 stops into a progressive meal. From the Cheese Mart to the Spice House, EGSA Members had a great networking experience over food and drinks together. When the food tour ended, Members had the second option of either a Milwaukee beer tasting or a kayaking tour on the historic Milwaukee River. Fun was had by all who attended this informal networking opportunity!

With everything now said and done, EGSA's trip to Generator Country was an extremely productive visit that was a long time coming! We are hopeful that our travels will take us back to this great city, born of rich traditions in Native American, German and Polish cultures. We hope that the Members who attended our Milwaukee Conference will tell two friends and join us in Sarasota, FL next March and we leave you with a parting quote:

*“A Country is not a mere territory; the particular territory is only its foundation. The Country is the idea which rises upon that foundation; it is the sentiment of love, the sense of fellowship which binds together all the sons of that territory.”*

~Giuseppe Mazzini

Giuseppe Mazzini (1805-1872) was an Italian nationalist and patriot and was the author of “The Duties of Man and Other Essays”, a collection of Essays written for his countrymen; he wrote of the innate duties of man toward God, Country and Humanity.

## Awards in “EGSA-lence”

While the majority of our formal awards are presented at our annual Spring Convention, several awards and accolades were presented during our Fall Conference in Milwaukee! If you were not able to attend, here is a recap of what you missed!

### EGSA Wishes to Acknowledge our 2012 President's Award Recipients

Michael Pope, 2012 EGSA President, presented his coveted President's Award to several recipients in Milwaukee. Established in 2009, The President's Award is given on an as needed basis to honor an individual who has volunteered their time and energy to the betterment of the Association and the Industry through a specific project or endeavor.

#### The first two of three awards went to individuals described by Pope as follows:

“It did not take me long to single out a guy that, in my opinion, embodies the spirit of EGSA. He is one of those enviable people that we meet that always just seems so pleased to see you! He is an enthusiast – a highly admirable trait that encourages positive thinking. He never hesitates to help with something and our Association has benefitted, so many times, because he has volunteered. Nothing seems to be too much trouble, even though he has a business to run. We have recognized him a few times for his service and leadership over the years. Is he unique? Heck no... his brother is exactly the same!” said Pope as he called his first two President's Award recipients to the stage. **Congratulations to Joe and Bob Hafich of Emergency Systems Service Co., Inc.!**



#### SLRP Committee:

Chair - Debra Laurents,  
Cummins Power  
Generation

Joe Hafich, Emergency  
Systems Service Co., Inc.

Ron Hartzel,  
Eaton Corporation

John Kelly Jr.,  
Kelly Generator &  
Equipment, Inc.

Greg Linton,  
JRS Fabrication, Inc.

Next to the podium, Pope honored the Members of a vital EGSA Subcommittee, the Strategic Long Range Planning Committee (SLRP), with his third and final President's Award. Pope graciously recognized each Committee Member for their dedication and continued hard work on the EGSA Strategic Long Range Plan.

Formed back in 2008, the SLRP Committee worked tirelessly to construct our business plan for the Association. The Committee identified many important benchmarks for growth in the coming years, they asked for and received member input and most importantly, they provided a framework with measurable benchmarks to guide EGSA. The SLRP, considered a “living



document,” is vital to the Association because it is a roadmap that defines EGSA’s goals for growth and development, as well as the supporting strategies for how we will get there.

On behalf of the Committee, Debra Laurents, our Incoming EGSA President for 2013 and the Chair of the SLRP had this to share with the audience, “This Team (pointing to her colleagues on stage) helped pull it together, but it is everyone sitting at the tables tonight who helped implement it. Thank you very much!”

### EGSA Recognizes first Kelly Challenge Winner!

As President Pope pointed out, 2011 seemed to be the “Year of the Challenges” which was a great segue for the next two award presentations!

John Kelly, Jr., Immediate Past President, joined Pope on-stage and gave a brief intro on why his Challenge is so important to EGSA as a whole. “The purpose of the Kelly Challenge was to reach out to EGSA Distributor Dealers (DDs) to market the EGSA Tech Certification Program as the industry standard. We have all been in situations, such as low bid, where dealers are cut out due to price, but the comparison is not apples to apples when it comes to proficiency. EGSA Tech Certification represents an objective way for a contract officer to ensure that they are getting trained, qualified technicians. I am especially proud that we have our first winner and his name is David Bratton of Bay Diesel Corporation in Richmond, VA.”

One more item of note regarding the Kelly Challenge – The Challenge is still running. For each DD who turns in a printed specification or RFP that includes the standard for EGSA Certified Technicians, you will earn EGSA bucks\* too!

### The Hafich Challenge – Our results for the 2011-2012 EGSA Membership Drive

In 2011, EGSA introduced one of the most aggressive membership drives we have ever put together. At that time, your Board of Directors approved a very generous incentive/reward package for the winner of this challenge affectionately named “the Hafich Challenge” in honor of then Membership Chair, Bob Hafich.

As most EGSA Members know, within our EGSA Vision, Mission and Goals, one of the goals is to HAVE FUN and this presentation did not disappoint! Michael Pope called the names of each Member who had sponsored a new Member this year to the stage at the Welcome Lunch. No one went away empty-handed for their efforts! As the EGSA policy has dictated in recent years, each of these Members earned one hundred \*\*EGSA Bucks for every new Member that they sponsored.

As Pope was about to conclude the rigorous challenge, with 14 Members on-stage waiting for the results, Bob Hafich emerged from the back of the Ballroom in full prize fighting regalia and the theme to “Rocky” began to play. There was one clear winner of the challenge and it was Charlie Habic of Gillette Generators in Elkhart, IN. Charlie recruited 7 Members during the 2011-2012 calendar year! Way to go, Charlie!



Hafich Challenge winner  
Charlie Habic



Michael Pope with  
Outgoing Directors  
Brad Fennell &  
Ron Schroeder



### When One of Us Wins, We All Win!

#### EGSA Honors Our 2012 Outgoing Board Members:

While it is true that “all good things must come to an end,” it was with great thanks and gratitude that EGSA said goodbye to our three outgoing Board of Directors who served the Association for the 2010 -2012 term. Thanks go to:

- Brad Fennell, Chillicothe Metal Co., Inc.
- Ron Schroeder, ASCO Power Technologies
- Mark Steele, Technology Research Corp.

#### School Instructor 5-Year Milestone Achievement Awards:

We recognized two of our current EGSA School Instructors for attaining the 5-year milestone in 2012. Both Walter Chrysam of Alban Engines (not present in Milwaukee) and Michael Pope (of Clariant Corp., formerly Sud-Chemie) were honored with a plaque commending them for their 5 years of service to EGSA as a volunteer school instructor.



Michael Pope was  
recognized for 5 years  
of service as a volunteer  
school instructor



The Conventions & Communications Committee awards \$100 during each convention or conference to the EGSA Member who submits our winning theme for the event. Mr. Martin Morrill, also of Clariant Corp., was the recipient of our cash award for coming up with the theme for Milwaukee, “Brewing a Better Business.” Congrats Marty!

Mr. George Humpries, of Mena Electric, was not present in Milwaukee, however he won the \$200 drawing held in our Market Trends Committee Meeting for participating in the 2012 Market Pulse Survey!



Winner of iPad Giveaway Monday (sponsored by ComRent Intl) – Cindy Victoria, JRS Custom Fabrication, Inc. Cindy was also a First Time Attendee. What a great win!



Winner of iPad Giveaway Tuesday (sponsored by OMNIMETRIX, LLC) Larry Perez of Basler Electric Co.

\*EGSA bucks are redeemable for any EGSA product, including things like conference registrations for you and your spouse, reference books, membership renewal dues, EGSA Golf and Fishing outings, and a host of other opportunities so forego the cash and redeem those bucks! Remember, EGSA bucks don't expire, so you can keep collecting to a maximum of \$200 per person to use on a big ticket item, if you prefer.



*EGSA Presidents Past, Present & Future*



*David Lieberman, Mark Steele & Clinton Crownover*



*Ed Murphy & Ron Hartzel*



*Kim & Bob Hafich*



*Vaughn Beasley & Warner Bauer*



*Anthony Johnson, Steve & Nancy Evans*



*Lee Grave, Bruce Coventry & Max Dorflinger*



*Deb Laurents & Deborah Kelly*



*George Kuczenski & Trish Levere*



*Mike Witkowski & Keith Heid*



*Tanya Lewit, Judy, Bill & Allison Young*



*Michael & Pauline Pope with Marty Morrill*





*Dan Bigelow, Charlie Habic & Carmen Nasic*



*Greg & Joanie Walters with Sue & Paul Feld*



*Dennis Pearson & Cara Collins*



*Kyle Tingle & Dale Gaston*



*Fred Horner & Bob Piske*



*Michelle Reed, David Bratton & Jamie Atkins*



*Herb Whittall, Warner Bauer & Herb Daugherty*



*Steve Stoyanac & Brian Berg*



*Linda & Joe Hafich*



*Liz Bustamante & George Newell*



*Steve Kent, Rob Brown & Clayton Taylor*



*Stan Chula, Brad Chrudimsky & Roddy Yates*



# Under-Investment in the U.S. Electric Power Grid: What it Means to Our Industry

By Aaron Jagdfeld, President and Chief Executive Officer, Generac Power Systems

When a power grid failure in India struck in August 2012, the world took notice. The single largest power outage in history left 670 million people in the dark and had many of us thinking that a power outage of this magnitude must be the result of a country whose power infrastructure is taxed by growth, has lacked the investment necessary to keep pace and where regulatory agencies create more problems than they solve. Surely an outage of this scale—one that impacts half the population of a country—could never happen here in the U.S.

## Or could it?

In August 2003, a tree branch touching a line in Ohio triggered one of the largest grid failures in U.S. history; it plunged over 50 million people into darkness. On September 8, 2011, an 11-minute system disturbance originating at a single transmission line in Arizona cascaded and left nearly 3 million people without power in Arizona, Southern California and Baja California, Mexico—some for up to 12 hours.

Such mass power failures have already occurred in the U.S.—one of the most advanced nations in the world. Unfortunately, the conditions that led to those failures not only still exist, but they are exacerbated by phenomena ranging from population growth to severe weather. The reality is that a massive power outage in the U.S., like the one in India, could be much closer than we think. Fortunately, there's much we as an industry can do about it.

## The Problem of Power Outages

The U.S. power grid was built primarily during an analog age. The last major investments in the grid took place in the '50s and '60s. Our power grid lacks the ability to quickly heal itself. In fact, the American Society of Civil Engineers evaluated and graded our grid, giving it a D+ overall. It's also incredibly vulnerable to both cyber attacks and physical attacks. In June 2012, Secretary of Defense Leon Panetta, in his testimony before Congress identified the U.S. power grid with regard to security and threats to critical parts of our economy.

India's grid failure took power from more than 670 million people for multiple days.

Taxing this outmoded infrastructure is a burgeoning population. According to the U.S. Census Bureau, the decade from 1990 to 2000 saw the largest population growth in U.S. history. Our population hit the 300 million mark in 2006. A growing population can put stress on infrastructure, such as water and roads. But an increase in population also means an increase in demand for electricity for each person's home or life, for the business they work in, for the services they use and for the communities in which they live. The Census Bureau projects that by the year 2050, our population will exceed 400 million people. And they will all require electric power.

The way we use electricity has also changed significantly. The average single-family home has increased in size to nearly 2500 square feet, with almost 20 percent of homes having at least a three-car garage. Of the new homes completed last year, 88 percent were built with central air conditioning. While the average size television is now 55 inches, compared to the 19-inch screens of the past, Nielsen says more than 85% of smart phone and tablet users are using their mobile devices while watching television. Good Housekeeping says that digital kitchens are a top home

trend this year, and the IEEE points to a consumer electronics trend that includes seamless, non-stop connectivity in our lives and homes.

Beyond the home, we are working differently than ever before, and thus consuming power differently. Telecommuting, for example, continues to grow in popularity. In 2010, at least 20 million people were working from home at least one day a week. The number of employees who have said they work remotely at least one day a month is up 75 percent from 2005. New technologies, like portable electronic devices and the connectivity they offer make virtual meetings, webinars and video calls a futuristic reality for telecommuters. According to Forbes, there will be 7.4 billion network connected devices by 2015. The tremendous amounts of data-rich content being demanded of consumers requires equally enormous amounts of electricity to power the server farms, wireless towers, communication hubs, computers

and other devices that provide the necessary interconnectivity.

In fact, since 1990, demand for power has increased 400 percent faster than transmission capacity due to a lack of investment in transmission and distribution. That means the very tools and appliances that are allowing us to decentralize our workforce and share information are putting a strain on our electrical infrastructure like never before.

The demand side of this issue is not the only place to focus. On the supply side are the utility companies that monitor, regulate and profit from our use of electricity. Our supply side challenges are much clearer, as utility companies have not made the effort necessary to improve grid reliability. They have continued to rely on a patchwork approach to repairing the existing system, and have made only modest investments in infrastructure improvements. However, as a result of regulation, price controls, and shareholder demands, the 3,200 utility companies that collectively make up our nation's grid are nearly as constrained as the government when it comes to meaningful investment in improving grid reliability.

Speaking of government, we must also be aware of the impact that regulators have had in the reduced levels of power reliability. The very agencies tasked with monitoring the grid have failed to play a meaningful role in the modernization of our infrastructure. At a federal level, we have missed opportunity after opportunity to invest in the grid as part of any national energy plan. The 2009 American Recovery and Reinvestment Act (ARRA), for example, promised us a renewed national infrastructure. But this act failed in one very significant way: only one-half of one-percent of ARRA funding was tagged for investment in improving the electrical infrastructure. It's no small amount in terms of raw dollars, but it's not even a drop in the bucket considering the estimated price tag to repair the existing system and prepare it for the next 30 years of economic development—the best estimates of which are over \$2 TRILLION, or nearly 15 percent of our gross domestic product (GDP).

The weather itself is changing, too. Since 1980, weather-related disasters around the globe have more than tripled. Regardless of the cause, the planet has been getting warmer over the last 100 years. This warming is believed to be in some part responsible for the severity and unpredictability of our weather in recent decades.

2011 was the worst year on record for weather-related losses. According to the National Oceanic and Atmospheric Administration (NOAA), the U.S. set a record with 12 separate billion-dollar weather disasters in 2011 totaling approximately \$52 billion in damages. The Washington Post chose the term “historic” to describe the early season snowstorm in October of that year which devastated the mid-Atlantic and Northeast. Breaking records that have stood since the late 1880's, the wet, heavy snow took a huge toll on trees still full of leaves, knocking down power lines and poles, and creating outages for 3 million people in the area, many for days. This storm, dubbed “Snowtober” by the media, occurred over much of the same area that only 60 days earlier saw a fairly weak category one Hurricane Irene do

massive amounts of damage, leading to severe power outages for nearly 5 million people.

Most recently, July 2012 brought the now infamous derecho windstorm that swept 600 miles across the U.S., from Indiana to the Atlantic Ocean in the course of about 10 hours and left more than 4.3 million households without power in sweltering heat for up to a week.

### The Cost of Power Outages

Aside from the inconvenience that a loss of power causes for us in our daily lives, power outages cost our economy dearly. According to the U.S. Department of Energy, power outages cost us almost \$120 billion annually. The average cost of an outage for commercial and industrial companies is close to \$1,500 per second. That means the U.S. economy loses between \$100 and \$160 billion annually to power outages. A single large outage lasting several days or more, as we saw firsthand from the derecho event mentioned above, represented billions of dollars lost to our economy.

Even small outages can make a very large impact on local economies. Just recently, in Leadville, Colorado, the local utility, Xcel Energy, dealt with a power failure in that community. Reliability in the Leadville area had been excellent until May 2012. Then, during a 10-week period, Leadville experienced nine outages ranging from a few minutes to over four hours. Local businesses had to close or severely curtail the services they offer as they struggled through the random losses of power. A local gas station owner reported to the local CBS affiliate

that the summer months are most crucial to his bottom line. The tourism season brings in much of his revenue, and he said the four-hour outage alone cost him nearly \$4000.

Though we often applaud the flexibility of companies that allow their employees to work from home, the specter of a massive power outage looms larger than ever before, because more is at stake. The medical transcriptionist, outsourced from the hospital and working from home, is no longer protected by the backup power system that is required at the clinic or hospital. Instead, when a power outage occurs in the neighborhood, all the benefits of flexibility are lost and so, too, is productivity.

But workplace productivity losses are only the tip of the iceberg. The interruption of life safety services and the loss of critical infrastructure elements such as communications, transportation and water & sewer services go well beyond simple inconveniences; they constitute real dangers. Consider, too, that as our population grows, it is aging, too. In-home health needs like supplemental oxygen, refrigeration of medications, and the necessity to control our environmental conditions with dependable heating and central air conditioning systems will be critical to us as we try to stay in our homes longer as we age.

### Addressing the Problem

If there are multiple reasons our grid is failing, then there are multiple factors involved in creating potential solutions, too. For starters, there is the issue of the \$2 trillion investment needed to

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The average cost of an outage for commercial and industrial companies is close to \$1,500 per second.

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fix the grid. One of the key questions that must be answered—and is not reflected in any plan of any kind—is who should be responsible for that investment.

On top of the funding issue is the fact that there are literally thousands of regulatory bodies that will insist on being involved in developing the plan of action. The complexity of coordinating these entities in an efficient and timely manner is a huge job in and of itself.

Finally, assuming the issue of funding and regulatory cooperation has been addressed, the task itself of upgrading our power grid is so large and complex that it would be decades before the work was completed, and perhaps even decades before we would see a positive impact on reliability. Making up for years of underinvestment is not something that even the best collaborative efforts and huge sums of money can quickly reverse.

A good illustration of the enormous time and cost needed to fix the grid can be found in North Carolina. In 2003, that State considered burying its power lines following a severe winter storm that knocked out power to 2 million customers. The NC public staff utilities commission determined that the price tag would be \$41 billion and take 25 years to complete. The project was deemed unfeasible. The cost alone would have raised residential electric bills by 125 percent.

We all have roles to play in addressing the issue of reliable power, now and into the future. As consumers, we have to recognize that although we have enjoyed relatively low rates for our electrical power over the last several decades, the underinvestment that has occurred as a result has consequences. Many of us don't think of the grid as an infrastructure asset in the same way that we think of the highways and bridges we drive on, because we don't see it or experience it as viscerally. But it is, as we all know, an essential and now indispensable part of our lives. We must acknowledge the seriousness of the current state of the grid and agree to be a part of the solution.

Unfortunately, our current focus has been directed on smart grid projects and environmentally oriented alternative sources such as wind and solar. The need for cleaner energy is understandable, and putting some amount of our attention and resources towards alternatives is valuable as part of a longer term solution. However, with many aging coal plants becoming non-compliant with the EPA's newest regulations and needing to be retired, shouldn't we be focusing more of our efforts on bringing new, cost-effective power generation sources such as natural gas-fired and nuclear plants online? The impact that we could see on reliability from the loss of key base load power assets is frightening. Outages have increased 124 percent since 1990. As many as 500,000 customers experience a power outage every single day, and the grid runs with half the capacity margin it had only 20 years ago.

As an Industry we can have more of an impact on the issue of power grid reliability. By improving consumers' understanding of the situation and educating them as well as creating awareness about the problem, our primary mission must be to let consumers know that they have the ability to protect their livelihoods by having a solid backup plan. Going forward, we

must promote the message that an on-site backup power solution should be a standard item on all homes and businesses.

Additionally, we can and should communicate how the use of on-site power keeps America's economic engine running. Our solutions have a clear impact on helping to expand U.S. manufacturing. Much has been written in the last few years about the resurgence in U.S. manufacturing. Manufacturing is nothing like it was a generation ago. Factories are not the dirty, dark, dangerous places they once were. They are now well lit and equipped with state-of-the-art technology. Today's manufacturing jobs require technical skills far beyond that of the previous generation, and the jobs available are well-paying, family-supporting careers.

By continuing to increase the demand for on-site power, we as an Industry are in a position to promote manufacturing in the U.S. In doing so, we will not only create jobs; we will remove the stigma associated with careers in manufacturing. As a result, we can help reverse the destruction of the middle class. This is a bold approach, but the result will be a significant increase in the activity within our plants. Positioning our industry in this way can help validate on-site power generation as a viable investment option in the overall discussion about how to improve the reliability of the grid.

We must also review our collective approach to the market. This includes everything from the way we are marketing on-site power to the way these products are bought and sold. In my nearly 20 years in the Industry, I have seen a lack of cohesive messaging to the market. I believe we are missing opportunities to connect all of the stakeholders in the process. EGSA's efforts regarding technical training have been fantastic. Improving technical knowledge about our products has been a priority, and it's working. Shouldn't we now look to improving our sales and marketing efforts through a similar approach? Shouldn't we be focused on innovating the ways we work together with the regulatory bodies that develop the codes and permitting processes that impact every single product we produce, sell, and install? Shouldn't we be doing more to tap into the professional networks of those involved in engineering, architecture and construction to ensure we've paved the way for them to make on-site power a necessity in the minds of their clients?

Lastly, keeping pace with new developments and their impacts on our Industry should continue to be at the forefront of our focus. An example of that today is the shift that is occurring in the country regarding natural gas. Natural gas is to the U.S. what crude oil is to the Middle East. And it is an important key to our future plans as they relate to our investments in the grid. The abundance of domestic natural gas coupled with its environmental soundness and multiple applications across all sectors means it can play an increasingly important role when we are faced with the kind of energy demand we will see in the future. The opportunity for us here isn't simply in raising awareness of natural gas. It is in our hands to continue to research and develop viable backup power options that provide energy, while using the smartest energy sources available. We have to be forward thinking in our products because, as the statistics show, the grid is still being operated like it was in the past.

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Outages have  
increased  
124% since  
1990.

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## Conclusion

There is much we can do to help with the power grid crisis and avoid catastrophic power outages. We manufacture products that can be there for people when outages occur. We are leaders in the Industry and experts in our field. We know that fixing the grid will take an enormous amount of time and money. By increasing awareness, we can help the public recognize the depth of this costly, long term problem.

Yes, we run the risk of moving things toward change we prevent immediate loss. Our involvement will also allow us to more actively participate in crafting the solution. On-site power is a cost-effective solution that should be positioned as part of the broader initiative to improve grid reliability. Outages are happening every day with alarming frequency and increasing duration. Seizing this reality gives the opportunity to position ourselves as the hero. As I like to tell my colleagues at Generac, we don't cause power outages; we're simply here to help people get through them.

We watched as India's grid failure took power from more than 670 million people for multiple days. In the stories that followed, we were constantly reminded that in India, a country still developing its infrastructure and economic prowess, only a third of the residents have access to regular electricity in the first place. A burgeoning system that has a failure is one thing, but when the U.S., arguably the most developed nation in the world, has an outage because of a snowstorm, a squirrel in a transformer, or a failed switch—our talk of progress and innovation loses credibility.

There is much we can do to help with the power grid crisis and avoid catastrophic power outages.

After all, how innovative are we if we can't keep the lights on? What is our future to be if our power grid, and the regulations that surround it, are stuck in the past?

The time to act is now. Across much of the country, people are preparing for storms—some perhaps a little more than they have in the past because they know from experience an outage is coming. It is our responsibility to turn that awareness of the problem into action, by being there when consumers and businesses ask for the protection only we can provide. ■

## About the Author

Aaron Jagdfeld has served as Generac's CEO since 2008. He began his career there in 1994 and worked his way up the ranks and was named President in 2007 before becoming CEO.



He was one the Milwaukee Business Journal's "Forty Under Forty" in 2012 and also earned the prestigious Ernst & Young "Entrepreneur of the Year" award in the manufacturing category for the upper Midwest this year.

Aaron serves on the Board of Directors for the Waukesha County, WI Chamber of Commerce Manufacturer Alliance and the YMCA in Mukwonago, WI. He holds a Bachelor of Business Administration degree in Accounting from the University of Wisconsin-Whitewater, where he is currently a member of the accounting advisory board.

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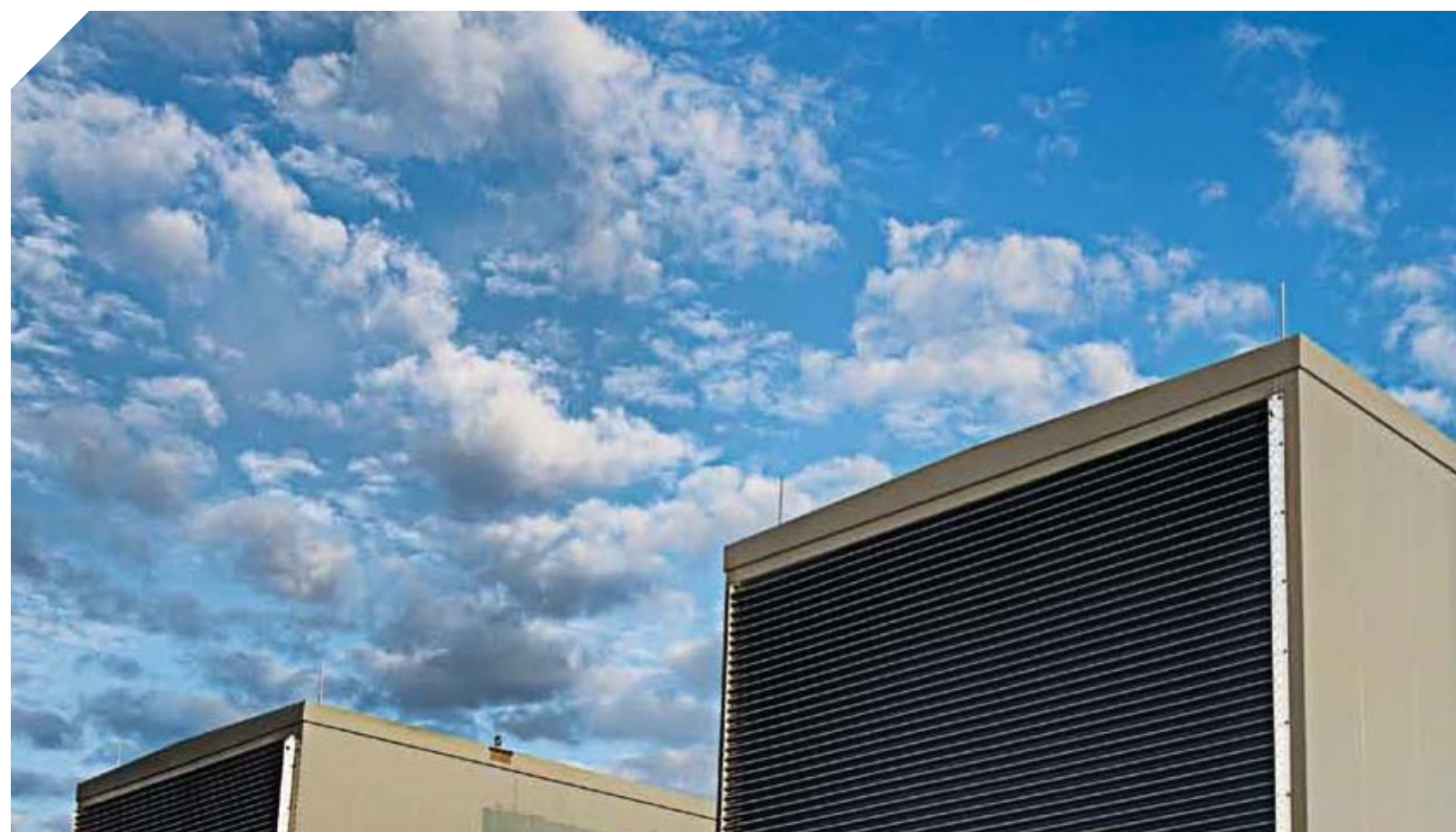
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## EGSA Names Bob Breese Director of Education

The Electrical Generating Systems Association (EGSA) is pleased to announce that Mr. Robert (Bob) Breese of Eagle, Wisconsin has been tapped as the new Director of Education for the trade association. Breese has more than 30 years of experience as it relates to this position, most recently working as the lead service trainer and technical writer for Generac Power Systems. In that position he developed the course curricula for Generac's factory and field service training programs. He also served as an EGSA Advanced and Basic school instructor for the past three years.

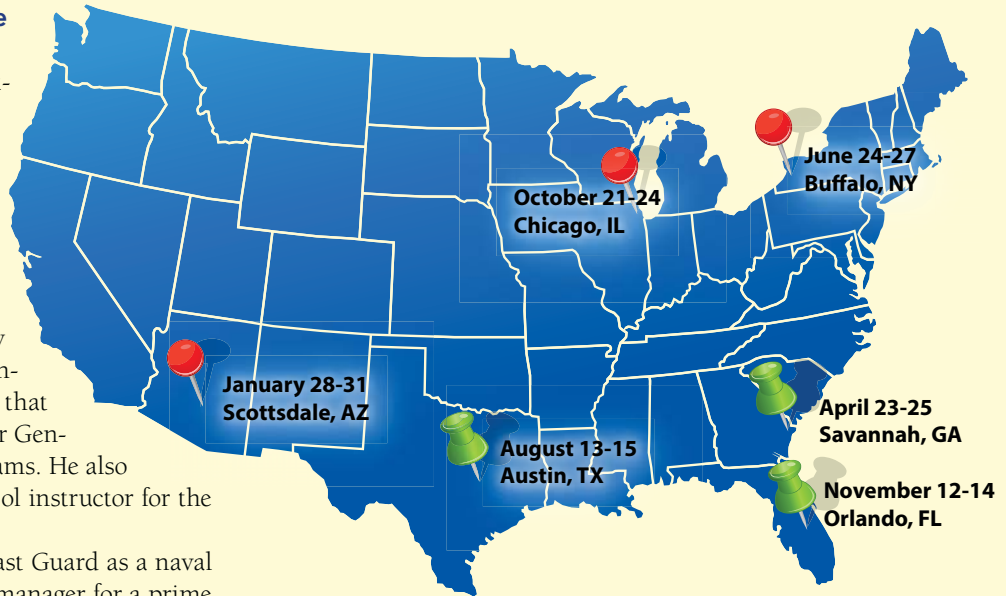
Breese served for 25 years in the U.S. Coast Guard as a naval engineer, then worked as a service program manager for a prime power contractor in Iraq from 2004 to the end of 2005. "My father set the stage for my life when I was 9 years old; he taught me, among many other things, Ohm's Law, how it worked and how to apply it. His patience and example developed in me a love of learning and a passion for helping others to learn and understand. Through the Coast Guard I learned effective principles of instruction and course development. With Generac I was able to apply those skills and knowledge and help them to build a world-class service training program. Using the current and rapidly evolving communication technology we have today, there are limitless ways to help people learn complex principles quickly. We have to use this technology effectively to share the knowledge and experience so many in our industry have with the younger generations coming into this field. I look forward to working with our Members to do just that with EGSA."

"We are delighted to welcome Bob to the EGSA staff. We have both been EGSA school instructors for a few years so I know that he has extensive generator systems knowledge. That, and his writing and organizational skills, will be a great asset to the Association and its members" says 2012 EGSA President, Michael Pope.

Breese's responsibilities will include directing the association's Educational programs, such as the Basic and Advanced Power Schools, the EGSA Technician Certification Program as well as the David I. Coren Scholarship Program. Breese will also have full responsibility for the eLearning Program as it is developed and implemented.

As a member of the Association's staff and management team, Breese will also have a bi-monthly column in Powerline Magazine and will oversee the publishing of future editions of On-Site Power Generation: A Reference Book.

"When we were faced with the arduous task of finding a replacement after George Rowley's, our previous Director of Education, accident earlier this year, we felt very fortunate to have identified Bob Breese as a candidate for the position and subsequently welcomed him to our team. Bob is very capable of leading the EGSA Education Programs to the next level following Rowley's dynamic length of service to the Association. Obviously, these shoes are not easily filled," says Jalane Kellough, EGSA Executive Director. ■



## EGSA Schedules Six

### On-Site Power Generation Schools in 2013

EGSA has announced a schedule of three basic and three advanced On-Site Power Generation Schools for 2013. For full details and registration information, visit [www.egsa.org](http://www.egsa.org). ■



#### Basic Schools

- April 23-25 – Savannah, GA
- August 13-15 – Austin, TX
- November 12-14\* – Orlando, FL



\*To be held concurrently with Power-Gen 2013

#### Advanced Schools

- January 28-31 – Scottsdale, AZ
- June 24-27 – Buffalo, NY
- October 21-24 – Chicago, IL



## Congratulations to Cara & Heath Clark

The EGSA Staff wishes to congratulate our Manager of Meetings & Conventions, Cara Collins on her nuptials that took place on Saturday, November 10th! Her new name will be Cara Clark, so please download Mrs. Clark's new v-card here:

[www.egsa.org/AboutUs/Staff.aspx](http://www.egsa.org/AboutUs/Staff.aspx)

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# 30-Cycle Transfer Switches Simplify Selective Coordination

By John Stark, Russelectric Inc.

## Overview

Due to recent changes to the National Electrical Code® (NEC) the selective coordination of overcurrent protective devices at hospitals and other mission-critical facilities is required. Transfer switches with 30-cycle closing and withstand ratings dramatically simplify designing to that requirement.

## Selective Coordination Requirements

Selective coordination was first required by the NEC in 1993 for elevator circuits. Amendments to the Code in 2005 and 2008 strengthened the requirements and expanded them to include emergency and legally required standby systems, as well as critical operations power systems (COPS).

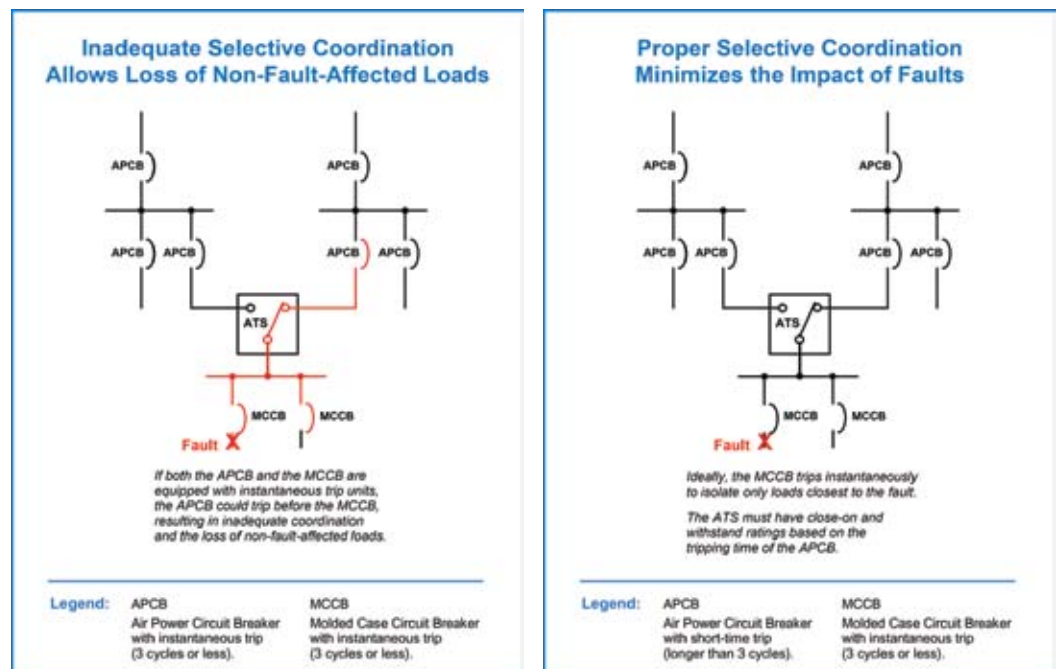
Selective coordination, as defined in the 2011 NEC, Article 100, is the “localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the choice of overcurrent protective devices and their ratings or settings.” It is a complicated process of coordinating the ratings and settings of overcurrent protective devices, such as circuit breakers, fuses, and ground fault protection relays, to limit overcurrent interruption (and the resultant power outages) to the affected equipment on the smallest possible section of a circuit. In other words, in a perfectly coordinated power system, the only overcurrent protective device that should open is the device immediately “upstream” from the circuit/equipment experiencing an overcurrent condition.

## UL Standards and Testing

Underwriter Laboratories (UL) Standard 1008, the industry-accepted standard, establishes the criteria by which automatic transfer switches are listed. The listing process includes passing tests for closing and withstand short-circuit values. Switches may be listed under several different testing protocols, including:

- Testing for a 3-cycle fault duration. A switch passing this test is considered to be coordinated with any molded-case circuit breaker capable of interrupting the test closing and withstand value. This test is more stringent, but in no way simplifies selective coordination.
- Testing for a specific amount of time beyond 3 cycles to establish a short-time rating. To pass this test, a switch has to close in on and withstand a fault current for the specified test duration. Close and withstand for 30 cycles is considered to be coordinated with any circuit breaker having only short-time overcurrent protection (not instantaneous). A 30-cycle-rated switch therefore eliminates a host of coordination considerations and dramatically simplifies the entire selective coordination process.

If transfer switches are being protected by circuit breakers with short-time overcurrent protection only, and the switches have only 3-cycle closing and withstand ratings, they are not properly coordinated with their protective breakers. Under these circumstances, transfer switches with 30-cycle ratings are needed to properly coordinate.



Diagrams Courtesy of Russelectric

- Testing with a specific overcurrent device so that the listing is dependent on use of that device or another with identical or faster time/overcurrent curves. While this approach makes it easier for the manufacturer to pass testing, it actually complicates the process of selective coordination for the design engineer.

Selective coordination is best done on the drawing board, at the beginning of the design process. Although achieving genuine, documented selective coordination as defined by the NEC can be time-consuming and expensive, flawed selective coordination is even more so. To comply with requirements, a selective coordination plan must consider — for every pertinent circuit — the full

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range of maximum available overcurrents, including overloads, all types of faults, and short circuits. As daunting as the process is in theory, it is even more difficult in practice, complicated by differences in the ratings of overcurrent devices from one manufacturer to another. Obviously, choosing a supplier who offers a full line of sizes of a particular device, whether protective device or transfer switch, also makes the coordination process much easier.

Many contracts and code enforcement authorities require a study to evaluate the pertinent circuits and confirm that the protective devices have been selectively coordinated. Performed after construction, such studies are a minefield for systems that were not designed carefully in the first place. Once a system has been determined to be non-compliant, redesigning it and replacing various components can be extremely costly and time-consuming. Even if proper protective devices are installed as a corrective measure, the cable, bus, or conduit ratings may not be adequate. Or a higher-rated transfer switch or new panelboards may be needed, requiring extra mounting space. Since a change to one component often affects others, new calculations are necessary to see what else must be replaced. Such retrofitting to obtain a certificate of occupancy is a design engineer's nightmare.

Numerous modifications of the NEC requirements have been adopted by local and state governments with varying degrees of enforcement, but let designers be forewarned: It is far better to err on the side of too much protection than not enough. The specifier might be called upon to prove that the time-current curves for circuits in his/her selective coordination scheme comply with the NEC by not overlapping at the available fault current. Even in a locality where selective coordination requirements on the books are not enforced, a specifier and his/her engineering firm could be found liable for injuries suffered due to inferior selective coordination — for the life of the building! So, needless to say, selective coordination should also be done with an eye toward future changes in or the expansion of the power system.

### Hold That Line

In a selectively coordinated electrical system using circuit breakers, the breaker for every load circuit must have the proper ratings, interrupting capacity, and settings for the point at which it is installed, based on the highest potential overcurrent from either powersource (normal or backup). Progressing “upstream” through the circuit paths, from the smallest load branch circuit all the way to the normal and backup power sources, the specifications of a true selective coordination plan must ensure that every circuit breaker has a higher overcurrent rating and a longer time-delay than the one below it, so that every overload/fault will be cleared by the breaker farthest “downstream” (the breaker immediately “upstream” from the problem).



Photo Courtesy of Russelectric

*Selective coordination is easier with 30-cycle-rated transfer switches. Certain manufacturers offer these and 30-cycle-rated bypass/isolation switches.*

Today, most transfer switch designs have only 3-cycle closing and withstand ratings. The ability to withstand fault current for 10 times that duration (one-half second) necessitates that 30-cycle transfer switches are mechanically stronger by orders of magnitude. Because of its function — switching from normal to backup power and back again — a transfer switch is obviously in a key location, and its ability to withstand a fault condition is vital to supply power to the served load. In the event of a fault, a transfer or bypass/isolation switch that can withstand 30 cycles of overcurrent is like a sturdy defensive lineman in a football game. Holding the line long enough to allow the coordinated overcurrent protection to interrupt the fault, a 30-cycle switch assists in protecting downstream equipment, such as expensive medical devices.

Another major benefit of 30-cycle transfer switches is the extra capacity they provide for later expansions of electrical systems. The design phase of a renovation that upgrades available fault current or replaces overcurrent protective devices will proceed more smoothly if 30-cycle switches are already installed. For example, many hospitals are upgrading their power systems to supply backup power to more loads. In the past, the typical hospital backup system covered only NEC-required essential loads (typically only 25-30 percent of the hospital's total connected load). Recently, the trend is to add the hospital's HVAC system to the backup system to reduce patient discomfort (and perhaps even save lives) in the event of an extended outage. Medical imaging machines are also being added, and as hospitals transition to electronic medical records they often wind up creating their own mini data centers, where computers must not crash. Today, a hospital's standby electrical load can be as much as three times what it used to be — 75% or more of its total connected load.

Another example is today's data centers, many of which are being designed and built on a modular basis. Through the selection of and standardization on specific types (and even brands) of servers, cooling equipment, etc., data center designers have significantly simplified the process of modifying these facilities to accommodate changing needs, or expanding them to accommodate growth. Yet, if the selective coordination process is based on current needs only, there will be little flexibility in the power control system for such changes or growth. And ensuring that the power system complies with selective coordination requirements after it has been reconfigured or expanded may require far more time, effort and expense than the changes themselves. In many cases, investing more today in equipment that exceeds current requirements will dramatically simplify selective coordination efforts that result from future growth.



## Proceed With Caution

Several things should be taken into consideration when selecting a 30-cycle transfer switch. With the right switch, the additional security and system design simplicity offered by a 30-cycle closing and withstand rating can become reality. Asking a few important questions can make a difference.

Does the manufacturer offer a full line of 30-cycle transfer switches? If so, the specification of a switch is simply a matter of its continuous current rating and is not complicated by gaps in the manufacturer's product line, or by the necessity of specifying a much higher continuous-rated switch than the circuit would normally require.

Has the 30-cycle transfer switch been tested according to UL standards, and is it UL listed and labeled? The switch's closing and withstand rating must be a performance value based on actual testing to UL Standard 1008. Because the 30-cycle closing and withstand test is optional under UL-1008, specifiers and purchasers of 30-cycle switches should carefully scrutinize the presentation of any manufacturer's 30-cycle ratings to be certain that they are based on actual testing by UL and that the switches are UL listed and labeled. This listing must include a close-on rating. Withstand ratings without concurrent close-on ratings are not adequate.

Cost is always a consideration in the choice of any piece of equipment. In the final analysis, however, a transfer switch is a key component in an emergency/backup power system designed to protect lives and/or vital assets. Since the switch serves such a critical function in the system — for both normal and emergency loads — and since the potential losses from any malfunction are so great, the cost of the switch should be secondary to its performance. With this in mind, system designers and owners should insist on the best switch they can find. Given the robustness of its design and construction and its proven ability to withstand 30 cycles of punishment, a 30-cycle-rated switch makes perfect sense.

## Conclusion

The 30-cycle transfer switch holds tremendous promise as perhaps the single most cost-effective and simple solution to the complex challenges of selective coordination. The right 30-cycle switch can simplify a backup power system's design and offer more reliable protection. Plus, it provides unmatched flexibility for future system upgrades and expansion. ■

## About the Author

John Stark is Sales and Marketing Specialist for Russelectric, which designs, builds, and services on-site power control systems. For more information, contact him at Russelectric, South Shore Park, Hingham, MA 02043-4387, Toll-Free: 800-225-5250, TEL: (781) 749-6000, FAX: (781) 749-4205, [www.russelectric.com](http://www.russelectric.com).



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# Application for Membership

## ELECTRICAL GENERATING SYSTEMS ASSOCIATION

1650 South Dixie Highway, Suite 400, Boca Raton, FL 33432 • 561-750-5575 • FAX 561-395-8557

E-Mail: [e-mail@EGSA.org](mailto:e-mail@EGSA.org) • World Wide Web: [www.EGSA.org](http://www.EGSA.org)

*Under the leadership of its Board of Directors and operating through its various committees and staff, EGSA strives to educate, provide networking opportunities and share relevant knowledge and trends with industry professionals including manufacturers, distributor/dealers, engineers, manufacturer representatives, contractor/integrators and others serving On-Site Power consumers.*

### 1. Contact Information

*Please type or print all information in upper and lower case (NOT ALL CAPS!)*

Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State/Province \_\_\_\_\_  
Zip/Postal Code \_\_\_\_\_ Country \_\_\_\_\_  
Phone \_\_\_\_\_ FAX \_\_\_\_\_  
Official Representative \_\_\_\_\_ Title \_\_\_\_\_  
Representative's E-Mail \_\_\_\_\_ Company's Web Address \_\_\_\_\_  
How did you hear about EGSA? ☐ Web site ☐ Powerline magazine ☐ Colleague ☐ POWER-GEN ☐ Other \_\_\_\_\_  
Why are you joining EGSA? ☐ Certification Program ☐ CEU Program ☐ Power Schools ☐ Buying Guide Listing ☐ Other \_\_\_\_\_

### 2. Member Classification

*Read the Membership classifications below and check the box that describes your firm's classification.*

#### I. FULL MEMBERSHIP

- ☐ MF **Manufacturer Membership**  
Any individual, sole proprietor, partnership or corporation seeking membership must apply for a Full Membership as a manufacturer if they meet one or more of the following criteria:
1. They manufacture prime movers for power generation.
  2. They manufacture generators or other power conversion devices producing electricity.
  3. They manufacture switchgear or electrical control devices.
  4. They manufacture or assemble generator sets, UPS systems, solar power, hydropower, geothermal, or any other power production or conversion system including related components or accessories for national or regional distribution.
  5. They are a wholly owned subsidiary of a firm that qualifies under rules one through four.
- ☐ DD **Distributor/Dealer Membership**  
Any individual, sole proprietor, partnership or corporation actively engaged as a distributor or dealer for products listed under Manufacturer Membership may apply for Full Membership as a Distributor/Dealer. If an organization qualifies under Manufacturer Membership, it is not qualified under this section.
- ☐ CI **Contractor/Integrator Membership**  
Any individual, sole proprietor, partnership or corporation actively engaged as a Contractor or Equipment Integrator of products listed under Manufacturer Membership, not bound by brand, geographic territory or contractually obligated as a Distributor/Dealer of a specific product. These firms typically purchase products from a Distributor/Dealer, Manufacturer or Retailer, adding value through installation, product knowledge, relationships, unique services, etc., and then re-sell the resulting product to an end-user.
- ☐ MR **Manufacturer's Representative Membership**  
Any individual, sole proprietor, partnership or corporation actively engaged in the representation of products listed under Manufacturer Membership may apply for Full Membership as a Manufacturer's Representative. If an organization qualifies under Manufacturer Membership, it is not qualified under this section.
- ☐ EM **Energy Management Company Membership**  
Any individual, sole proprietor, partnership or corporation engaged in energy management, including Energy Service Companies (ESCOs), Independent Power Producers (IPPs), Integrators, Aggregators, and other similar enterprises may apply for Full Membership as an Energy Management Company.
- ☐ **Associate Full Membership (mark appropriate category at right)**  
Any individual, sole proprietor, academic institution, student, partnership or corporation meeting the requirements of Associate Regular Membership may apply for Full Membership at their option to enjoy the privileges of Full Membership, including the rights to vote and to serve on EGSA's Board of Directors. Initiation fees and annual dues will be assessed at the existing non-manufacturer Full Member rates.

#### II. ASSOCIATE REGULAR MEMBERSHIP

- ☐ AA **Trade Publication Membership**  
Any trade publication dealing with the electrical generating systems industry or its suppliers may apply for Associate Membership—Trade Publications.
- ☐ AB **Trade Association Membership**  
Any trade association made up of individual or company members sharing a common interest in the electrical generating systems industry may apply for Associate Membership—Allied Associations.
- ☐ AC **Engineer Membership**  
Any consulting or specifying engineer may apply for Associate Membership—Engineer. Membership may either be held in the employer's name or individual's name under this classification. Individuals whose employer qualify as a Full Member, as described in the Full Membership section, do not qualify for this category.
- ☐ AD **End-User Membership**  
Any individual employee of a company who owns or operates electrical generating equipment and/or related switchgear or components, whose responsibility to his employer includes planning, design, installation, supervision, or service of such equipment may apply for Associate Membership—User. Membership may either be held in the employer's name or individual's name under this classification. Individuals whose employer qualify as a Full Member, as described in the Full Membership section, do not qualify for this category.
- ☐ AE **Service Membership**  
Any individual, organization or academic institution that offers services such as research, testing or repair to the electrical generating systems industry may apply for Associate Membership—Services. Membership may either be held in the individual's name or the organization's name under this classification. Individual companies whose employer or parent organization qualifies as a Full Member, as described in the Full Membership section, do not qualify for this category.
- ☐ AG **Educational Institution Membership**  
Any postsecondary vocational-technical school or college offering on-site power generation-related instruction may apply for Associate Membership—Education Institution.
- ☐ AR **Retiree Membership**  
Any individual who retires from a member company may apply for Associate Membership—Retired. This classification does not apply to any individual who is employed more than 20 hours per week.
- ☐ AF **Student Membership**  
Any individual currently enrolled at an academic institution may apply for Associate Membership—Student.



## Application for Membership – page 2

### Dues Schedule (Use for Section 3)

	Annual Dues	Initiation Fee	TOTAL
Manufacturer.....	\$870	\$200	\$870
Distributor/Dealer.....	\$300	\$100	\$300
Contractor/Integrator.....	\$300	\$100	\$300
Manufacturer's Rep.....	\$300	\$100	\$300
Full Associate Member.....	\$300	\$100	\$300
Energy Management Companies.....	\$210	\$0	\$210
Regular Associate Member.....	\$210	\$100	\$210
Retiree Member.....	Complimentary	\$0	\$0
Student Member.....	Complimentary	\$0	\$0

**Initiation  
Fee Waived  
Through  
2/28/2013**

**NOTE:** A FULL 12-MONTH DUES PAYMENT MUST BE RECEIVED WITH THIS APPLICATION. The Association's Membership Year is January 1 through December 31. Dues payments that extend beyond the first Membership Year will be applied to the second year's dues.

**FULL PAYMENT MUST BE RECEIVED WITH APPLICATION.**

### 3. Membership Dues (Please fill in the appropriate TOTAL amount from the above dues schedule.)

Membership Dues \$ \_\_\_\_\_  
 Membership Plaque (optional)\*\* \$ 49.95\*\*  
 On-Site Power Reference Book (optional)\*\* \$ 125.00\*\*  
**Florida Residents:** Add 6% Sales Tax to \*\* items \$ \_\_\_\_\_  
 Continental US Residents add \$5 shipping/handling to \*\*items. \$ \_\_\_\_\_  
 Non Continental US Residents should call EGSA  
 Headquarters for shipping charges for \*\*items. **TOTAL** \$ \_\_\_\_\_

### 4. Payment Method (Payable in US\$ drawn on U.S. bank, U.S. Money Order, or American Express)

☐ Check # \_\_\_\_\_ Amount Due \$ \_\_\_\_\_  
☐ Money Order  
☐ Mastercard ☐ Visa ☐ American Express  
 Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Print Name: \_\_\_\_\_

**5. Products/Services** Please describe the nature of your business (50 words or less, NOT ALL CAPS). If you are a Manufacturer's Representative or Distributor/Dealer, please indicate which manufacturers you represent and/or distribute for; if you are a student, please provide the name and location of your school, your major and your anticipated graduation date:

Do you buy AND sell equipment? ☐ Yes ☐ No

Do you manufacture packaged equipment? ☐ Yes ☐ No

#### Available Codes:

01 ---Batteries/Battery Chargers	09 ---Generator Laminations	19 ---Silencers/Exhaust Systems/Noise Abatement
02 ---Control/Annunciator Systems	10 ---Generator Sets	20 ---Solenoids
29 ---Education	11 ---Generators/Alternators	21 ---Switchgear and Transfer Switches (Automatic or Manual), Bypass Isolation Switches, and/or Switchgear Panels
30 ---Emission Control Equipment	12 ---Governors	22 ---Trailers, Generator Set
04 ---Enclosures, Generator Set	13 ---Heat Recovery Systems	23 ---Transformers
05 ---Engines, Diesel or Gas	14 ---Instruments and controls, including meters, gauges, relays, contactors, or switches	24 ---Uninterruptible Power Supplies
06 ---Engines, Gas Turbine	15 ---Load Banks	25 ---Vibration Isolators
07 ---Engine Starters/Starting Aids	16 ---Motor Generator Sets	26 ---Voltage Regulators
08 ---Filters, Lube Oil, Fuel or Air	17 ---Radiator/Heat Exchangers	27 ---Wiring Devices or Receptacles
28 ---Fuel Cells	18 ---Relays, Protective or Synchronizing	
03 ---Fuel Tanks and Fuel Storage Systems		

#### Enter codes here:

**Products sold:** \_\_\_\_\_

**Products rented:** \_\_\_\_\_

**Products serviced:** \_\_\_\_\_

**6. Sponsor(s):** A "Sponsor" is an EGSA Member who interested you in filling out this application. It is not mandatory that you have a sponsor for the Board to act favorably on this application; however, if a Member recommended that you consider membership, we request that individual's name and company name for our records.

Sponsor Name \_\_\_\_\_ Company Name \_\_\_\_\_

### 7. Official Representative's Authorization

Signature \_\_\_\_\_ Date \_\_\_\_\_

## NEW EGSA MEMBERS

MF=Manufacturer DD=Distributor/Dealer CI=Contractor/Integrator MR=Manufacturers Rep  
EM=Energy Management Co. AA=Trade Publication AB=Trade Association AC=Engineer  
AD=End-User AE=Service AG=Educational Institution AR=Retiree AF=Student

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## NEW EGSA MEMBERS

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Thomas Black, Principal

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Steven Amenson, Partner

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### Water Management, City of Durham, NC. . AD

Durham, NC

Cindy Kelly, HR Consultant

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# Indiana University Data Center Epitomizes 'Mission Critical'

## New Data Center Features Tier III, N+1 Redundancy, Cost-Saving Flywheel UPS Technology and Switchgear with Full Bypass Capability to Help Ensure Power Reliability



### Talk about mission critical!

The \$32.7 million, 82,700 sq. ft. Indiana University Data Center at Bloomington is as critical as it gets for an institution of higher learning.

It shoulders heavy responsibility. It's required to ensure the safety and security of the university's most prized networking, computer processing and data storage equipment.

The data center supports teaching, research and administration at all eight university campuses, and enhances the university's competitiveness for research grants.

It secures the university's digital and technological assets, including the supercomputers Big Red and Quarry, and the Bloomington hub of Indiana's statewide I-Light network.

Finally, the data center and its staff provide backup data space, network capability and critical redundancy to the State of Indiana.

### Could the stakes be any higher?

It's no wonder then that reliable, on-site power stood front and center as a 'must-have' priority for the data center.

As one of the largest data centers in the region and the largest for higher education in the state, it currently holds 2.8 petabytes of information—or close to 3,000 terabytes, and supports computing on thousands of servers. Designed for longevity and resiliency, the data center's exterior is a concrete structure that was built bunker style to help defend against power outages, flooding and even an F5 tornado with winds that range from 261 to 318 mph that hurl cars like missiles for 100 yards or more.

For a data center that must help maintain the university's continuity of operations, its power system must be as cutting-edge as the data center itself...and it is.

It's a Tier III, N+1 configuration that provides the necessary redundancy to continue powering the data center through all but the most severe catastrophes. Any component in the power distribution system, for example, can be taken offline during a planned outage, without interrupting power to compute equipment. The configuration provides for fuel storage located on-site that can enable 24 hours of continuous power and meets other requirements of a Tier III design.

"Since we want to meet the Uptime Institute's Tier III requirements, we can bypass critical equipment allowing us to take

it offline for maintenance or testing," said Eric Goy, Facilities Electrical Engineer for the university. "However, our switchgear enables us to transfer power as necessary to perform maintenance, or react to emergencies and disruptions."

The power system itself, from start to finish, is a work of art using state-of-the-art equipment.

Three 12 kV circuits provide power to the facility. One is the main feed from Duke Energy, a primary utility source for Indiana, Ohio and Kentucky. Another is from the campus' distribution system, which is situated away from the data center. If an event interrupts the circuit from Duke Energy, power automatically switches to the distribution feed. The third circuit, which requires manual switching in the event of an emergency, provides additional redundancy.

All three circuits connect to a 15 kV switchgear lineup that acts as the brain of the data center's on-site power system. Power travels from the switchgear to four substations: two for compute, or server, rooms—CS1 and CS2, and two for mechanical rooms—MS1 and MS2.

Substation CS1 powers the enterprise compute room and is a dual main breaker configuration which keeps it connected to the normal utility source or the on-site generation. In the event of a power disruption, substation CS1 links directly to a pair of 1.5 MW generators via ASCO generator paralleling switchgear.

If a utility source interruption occurs, two 750 kVA uninterruptible power supply (UPS) units provide interim power for up to 25 seconds, or until the generator main breaker closes, rerouting the load to the generators. These UPSs utilize flywheel energy storage to maintain the load until the generators are online.

The short duration of effective power produced by flywheel technology emphasized the need for fast, reliable switchgear.

"We carefully selected our switchgear knowing that power must be transferred in under 25 seconds," said Robert Lowden, Director, Enterprise Infrastructure for the university. "Our switchgear reliably transfers power within 10 seconds, relieving the flywheel energy storage that would otherwise drop the load after 25 seconds."

Specifying flywheel technology rather than conventional batteries saved a significant amount of floor space and decreased the univer-



Robert Lowden,  
Director,  
Enterprise  
Infrastructure  
for the University

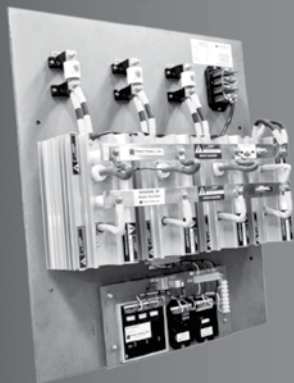
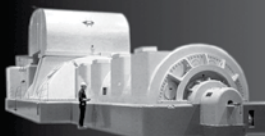
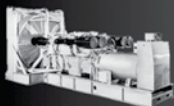




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Director of Education, Bob Breese, at (262) 225-3107.



sity's footprint. Flywheel technology also eliminates the cost of battery replacement every five years and of safely disposing lead and hazardous chemicals.

Both CS1 UPSs are paralleled on another switchgear lineup. This configuration enables feeds to the enterprise room. This room houses the critical compute loads.

Substation CS2 powers the research compute room. A 1300 kVA UPS powers the non-critical compute nodes and an additional 500 kVA UPS power the critical management nodes and storage arrays. This 500 kVA UPS is also connected to substation CS1 via an ASCO 7000 series automatic transfer switch. This allows the critical research load to run on generator if necessary. In order to maintain N+1 redundancy for enterprise computing in the event of a generator failure, the ASCO generator paralleling switchgear automatically shuts down the 500 kVA UPS and sheds the research load.

The first of two mechanical substations, MS1, is also a dual main breaker configuration that's integrated with the generator switchgear. Only substations MS1 and CS1 link to the two generators' room.

Substation MS1 supplies power to one of the three data center chillers, the cooling towers and all associated pumps and cooling devices required to keep the data center cool.

In addition to its cooling responsibility, MS1 also powers emergency lighting and the university's building management system (BMS). The BMS manages all critical building controls and temperature.

Substation MS2 provides power to chillers two and three. However, chiller two is fed from an ASCO 7000 series automatic transfer switch enabling it to switch from MS2 to MS1 during a power outage, or to cover cooling duties during maintenance if chiller one is taken offline.

Programmable logic controllers (PLC) in all switchgear help facilities staff manage building power through the BMS. The PLCs report all generator start ups and shut downs, power transfers due to outages and maintenance, and breaker status.

The university's operations center monitors everything, including fuel capacity and consumption. Everything reported to the operations center is recorded for historical analysis to review at a later date, if necessary.

Staff monitor, but cannot control, the system via remote computer. University officials decided that system control should only be available at the equipment, so when an alarm sounds, personnel must go to the source of each alarm to take corrective action.

It's an impressive system. There's no doubt about that. The "proof of the pudding" came, however, when it was time to test the system.

During data center startup and commissioning, the university conducted up to 20 "pull-the-plug" tests as "moments of truth."

During one test in particular, the facilities staff went "all out." "We went to our primary 12 kV feed from Duke Energy and threw the switches," Lowden said. "The generators started and synchronized, switchgear transferred loads and the backup system was online and running within 10 seconds. We couldn't be any happier with those results."

"Being back online in less than 10 seconds exceeds our requirements and meets those seen in critical services like health care," Goy added.

No problems or issues occurred during any of the tests. A rigorous testing schedule helps ensure it stays that way.

"We test our system for 30 minutes every week without transferring the load," Lowden said. "During our monthly test, we transfer the load and run for two hours. We don't run a full load test on the generators, but a full load of the building."

A 1500 kW load bank located onsite facilitates testing. It connects to the same switchgear lineup as the generators. This allows staff to perform full-load tests on the generators, without having to transfer power from the utility annually. Since the load bank is located onsite, the university saves time, manpower and expense that accumulate when renting equipment.

Transferring power intelligently is an integral part of any backup and emergency power system. If a generator didn't start or a load failed to transfer, the flywheel UPSs will reach their discharge limit and drop the load.

To protect against this type of dilemma, the power system features bypass capability. Most equipment within the facility is linked to switchgear, which helps bypass or reroute power in case of an emergency or power disruption.

To help maintain the data center, a service vendor visits the facility semiannually to ensure the generators, switchgear, UPSs and other equipment are functioning properly. The vendor changes filters and oil, replaces belts and satisfies other maintenance requirements annually, or as needed when spot checks occur.

Facilities staff also received hands-on training during the commissioning process that included actually transferring power to generators and restarting UPSs.

All-in-all, the Hoosiers continue to strive for excellence. Year after year, the University and its alumni prove to be the best, whether it's in academics or athletics. One thing is for certain, the data center sits at the top of the class. ■



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# Get Framed!

EGSA Photo Contest



**We are pleased to announce the results of our first Get Framed Photo Contest:**

**Grand Prize Winner:**

SUTTON STROMART LTD.

*Photography supplied by Rick Dezek, Sales Manager, Sutton Stromart*

**Isn't it Your Turn to Check the Anti-freeze?"**

Here is a photo of a challenging installation that Sutton Stromart completed back in 2004. From their low maintenance design to the extreme cold and snow, this project presented numerous challenges. Here, underneath all of the snow and ice, is a Sutton Stromart horizontal remote radiator cooling a Detroit Diesel Series 60 genset in Black Tickle, Labrador, Canada that has been running without issue since the installation!

*"Sutton Stromart is "tickled" to be selected as the Grand Prize Winner of EGSA's first ever Get Framed Photo Contest with our arctic radiator installation photo from Black Tickle, Newfoundland. Charles Stowbridge, Planner at Newfoundland Labrador Hydro who was our customer for this*

*project, has selected the "KIDS EAT SMART PROGRAM" at ST. PETERS SCHOOL in BLACK TICKLE as the recipient of the \$500 charitable donation. Our team at Sutton Stromart has always felt that EGSA provides an excellent return on investment, and this is just another example of how they deliver great service to their members. Thanks for allowing us to showcase our heavy duty remote radiators in your photo contest."*

Rick Dezek - Sales Manager U.S. - Sutton Stromart Ltd.

## EGSA Announces the Winner of the EGSA Get Framed Photo Contest!

EGSA and Powerline Magazine hosted a photography contest that kicked off in late July to support our marketing initiatives with some fresh photos! Each entry for the contest was printed, framed and on exhibit at the EGSA booth at our Fall Conference in Milwaukee, WI.

The contest was designed as an outlet to showcase the more difficult On-Site Power product installations within the Manufacturing Category. In contrast, the Distributor Dealer Category focused on "Champions of Service." While EGSA staff did not receive Associate Member entries within this first contest, we will continue to promote and capture visuals from each of our Member communities!



**PHOTO CONTEST PRIZES:**

**Grand Prize:**

- EGSA donated \$500 to the charity of the winning firm's choice!
- Category Winners (in each of the 3 categories): \$100 gift certificate is being awarded for each category. (Manufacturer, Distributor/Dealer and Associate Member categories respectively).

*\*\*Associate Members did not participate in this contest.*



**Manufacturers –“Most Challenging Installation” – Winner:**

MTU ONSITE ENERGY CORPORATION

*Photography supplied by Al Prosser,*

*Director of Sales, MTU Onsite Energy Corp.*

**“Digging Deep”** - Here is a photo of a challenging installation in the Collahausi mine in the Iquique Province and Tarapaca Region in Chile. At 15,000 feet, this mine is one of the highest altitude mines in the world and the installation featured an MTU 20V4000G63L engine, coupled with a Kato 4P9.6-2700 medium voltage generator, mounted on a custom quad axle trailer. MTU Onsite Energy was also proud to work alongside manufacturing partners Enercon Engineering, LoadTec Load Banks and Kato Engineering.

*“MTU Onsite Energy Corp. is pleased to be recognized in the inaugural “Get Framed” contest as the First Place Winner in the Manufacturing category. I would like to think that EGSA also shares in the credit for this successful project! Without the support, cooperation and expertise of our partners, all fellow EGSA Members, this project in that extreme environment simply would not exist. It was through EGSA that the supplier relationships were established, so it is only fitting that we all share in the bragging rights.”*

Al Prosser, Director of Sales, MTU Onsite Energy Corp.



**Distributor/Dealers “Champion of Service” Photo – Winner:**

EMERGENCY SERVICE SYSTEMS

*Photography by Kenny Ek*

**How important is Level of Service?** Technicians like the ones pictured here at a datacenter in Bethlehem, PA go the extra service mile to make sure this complex piece of machinery is ready to go when you are, cleaning terminals, charging and firing up the system to make sure it’s “All System Go!”

*“EGSA is the premier industry leader organization. This contest is a testament to that, as EGSA regularly promotes, recognizes, and awards its Members for their work. The Emergency Systems Service Company is proud and honored to be Member of EGSA and associated with so many good people.”*

Bob Hafich - Emergency Systems Service Company - President – Sales

**WHAT ABOUT THE “GET FRAMED” PART?**

The submissions were collected by the deadline of August 27th and framed and exhibited during the Exhibitor Showcase on Monday and Tuesday at the 2012 Fall Marketing & Technical Conference in Milwaukee. Powerline Magazine features an article that includes all of our winners!

Provide EGSA with your best visual images that can be considered for future EGSA promotional materials and presentations during our events!





# OMNIMETRIX

*Another in Our Series of EGSA Member Company Profiles*

For 15 years OMNIMETRIX has been enhancing the dependability of emergency generators through its wireless remote monitoring solutions. Crossing all generator brands, OMNIMETRIX systems extract and report vital operational data to owners and service organizations, not just reporting problems, but preventing them.

Today, the innovative company – which was acquired in early 2012 by Acorn Energy (NASDAQ: ACRN) – uses a myriad of satellite, Ethernet and wireless cellular technologies to dramatically improve the efficiency of service organizations. OMNIMETRIX calls it “SmartService™” technology.

OMNIMETRIX SmartService™ monitors each generator over 31 million times throughout a year, every second of every day. A service provider or customer can view the status of its generator, via any web browser through a secure website. And, if the generator experiences an alarm condition, OMNIMETRIX monitoring sends email and text message alerts to an unlimited list of recipients.

OMNIMETRIX monitoring systems are found at cell sites, distribution centers, hospitals, grocery stores, data centers, residences, and a growing number of locations across North and South America, Europe, Africa, India, Japan and Korea. “We build solutions for industrial, residential and mobile power generators for operation anywhere on the globe,” said OMNIMETRIX, LLC President and CEO, Deena Redding. “Currently, we are very busy expanding in the U.S. market, but international business will be a vital long-term component.”

## OmniMetrix

[www.OMNIMETRIX.net](http://www.OMNIMETRIX.net)

OMNIMETRIX was founded in 1998 by Harold M. Jarrett, when he introduced the first wireless remote monitor for on-site power generation – an unprecedented innovation at the time. Since then, demand for wireless monitors has skyrocketed as consumers worldwide have begun to rely on the continuous stream of valuable information contained within their gensets. The system monitors mission critical equipment 24 hours/day and alerts immediately via text or email of all alarm conditions. The number one priority is to help customers avoid failures through the use of available performance information.

OMNIMETRIX systems are compatible with every major generator controller in production today, and its extensive diagnostics provide genset owners peace of mind in the functionality of their remote equipment. With its historic performance reports and diagnostic analysis, OMNIMETRIX enables generator owners to accurately pinpoint machines that could potentially fail-to-start due to routine maintenance needs. With OMNIMETRIX technology, no matter how far away the equipment is located, its real-time condition is available 24 hours in an easy-to-read format, delivered directly to a secure website accessible by a computer or phone web browser.

## Relationships, Trust, Confidence

One of the most impressive things about OMNIMETRIX is the balance it has managed to create between designing industry-changing remote monitoring products, and building relationships with its customers—primarily generator dealers who sell its technology with their generators to increase value and reliability. The goal is to become a valuable partner with dealers to help them generate business and increase their profits. As part of the new Dealer-Partner program, members incur no costs for hardware... only a simple monitoring fee and have access to custom industry specific marketing opportunities and materials.

“OMNIMETRIX is, without a doubt, the industry leader in generator remote monitoring and control,” said Andy Briggs, who has worked with OMNIMETRIX for more than 15 years as a customer and in recent months as a business consultant. “Their capabilities are quite extensive, allowing you to dramatically increase the reliability of the generator sets you service while building your customer loyalty and retention.”

Monitoring generators and peripheral equipment at cell towers is a strong application of OMNIMETRIX processes. These remote, unmanned sites are an essential component of commercial and emergency communication. These sites are plagued with power quality problems, and the availability of emergency power is critical. One tower company manager states, “The OMNIMETRIX remote monitoring program is a necessary tool to ensure the functionality of our sites. Our shared power program guarantees power to the carriers who use our towers. For our program to run smoothly, it is essential that we know the status of our backup generators at all times.”

## “Know Before You Go”

OMNIMETRIX operates on the principle that 95 percent of all generator fail-to-start events can be avoided entirely. “The majority of failures come from consumables such as fuel, coolant, and starting batteries. These items are easily monitored and trended, offering the ability to predict and avoid many failures,” said Harold Jarrett, VP of Engineering at OMNIMETRIX, LLC. “That emerging prognostic capability is the foundation for the company’s future.”

One of the key components of OMNIMETRIX’s SmartService™ technology has been its creative “Know Before You Go” philosophy. “Historically, the monitoring of distributed equipment was done manually by men in trucks, driving from site to site,” said Jarrett. “Today, we completely automate data collection. Consequently, we can improve the ownership experience, while simultaneously improving the operating efficiency of the service organizations that utilize our products and services.”

Briggs also believes the OMNIMETRIX SmartService™ model can significantly enhance a service organization’s profitability and potentially change the way they do business altogether. By teaming up with OMNIMETRIX, Briggs said organizations have the opportunity to serve their customers more efficiently, differentiate themselves from the rest of the marketplace, add value, and improve profitability.

## EGSA and the Future

OMNIMETRIX is primarily focused in the on-site power marketplace and, because EGSA is dedicated to on-site power generation and provides a key leadership role in that market, the relationship between the two has been an ideal fit. Members of the OMNIMETRIX sales and engineering teams have attended EGSA conferences for a number of years. “We value the business and personal relationships we have built over the years and the recent expansion of our company has enabled us to become actively involved in EGSA,” added Jarrett, who recently presented a paper, Remote Diagnostics & Failure Prevention on Standby Generator Systems, at NFMT (National Facilities Management & Technology) 2012 in Baltimore.

“We are providing industry-changing technology, and the EGSA gatherings are a great place to meet like-minded professionals and share our stories,” said Jarrett. “I see that EGSA has an impact on the direction of the markets that we serve, and I appreciate the opportunity to help set that direction, even if only in a relatively modest way.”

As for the future, a priority is to showcase what a viable and cost-effective monitoring solution OMNIMETRIX offers for the residential market, a relatively untapped market. While the machines are not as sophisticated as the industrial machines, OMNIMETRIX still provides great value, reliability and peace of mind to the homeowner.

The next big focus in on-site power, according to Jarrett, will be energy storage, a key technology for the industry. “We are investing significant resources in developing the monitoring and control process for this much needed niche.”

## New Ownership: What it Means

Acorn Energy, Inc., owner of OMNIMETRIX, is a publicly-traded energy technology holding company with an accomplished track

record of making energy better by providing digital solutions for energy infrastructure asset management. The partnership has enabled OMNIMETRIX to grow more rapidly, increase its technical support, sales staff and management team, and be more aggressive and appealing in its pricing. These business and operational enhancements are paving the way for measured growth and continued innovation, in the industrial and residential markets.

“The financial backing and investment that Acorn is making into OMNIMETRIX offers reassurance that OMNIMETRIX will be strong for the long term,” stated Briggs. “More importantly, this investment strategy provides OMNIMETRIX with the ability to price their products and services so competitively that it now becomes very attractive and very compelling to seriously consider implementing their remote monitoring technology as a standard core part of the generator service business.”

For more information about OMNIMETRIX, please visit [www.OMNIMETRIX.net](http://www.OMNIMETRIX.net). ■



VP of Engineering, Harold Jarrett and  
Deena Redding, President and CEO



# Emergency Backup Power Successfully Minimizes Downtime after Hurricane Isaac

## Emergency preparedness is a critical component for public utilities

Year in and year out, from coast to coast we are reminded how absolutely dependent we have become on the underlying infrastructure that delivers the clean water, electricity, and communications we Americans have come to take for granted.

It is in moments such as when a hurricane, tornado, flood, ice storm or earthquake suddenly knocks out our community's utility services that we realize the implications of losing our access to these fundamental services.

The City of Gretna is all too familiar with these catastrophic occurrences. Seven years to the day after Katrina, Hurricane Isaac's impact on the gulf coast region left more than 900,000 customers without power for up to six days. After experiencing the devastation of Katrina, the City of Gretna had improved their backup power generation systems and found themselves much better equipped to handle the power outages this time.

After Isaac knocked out utility power, the City's preparedness plan was put into action at their water wastewater treatment plant with crews rotating four portable generators among eleven lift stations several times a day. By connecting portable generators to the permanently installed manual transfer switches, power was quickly restored to the city's potable water supply and sewer systems. Without power the potable water won't flow and the sewer system is subject to spills. By installing a pre-engineered solution, the small staff at the City of Gretna was able to easily utilize the back-up power equipment and minimize service interruption and prevent spillage.

Restoring power has not always been a quick and simple process for the City of Gretna. In August of 2005, Hurricane Katrina delivered a brutal reminder of just how critical it is to have a robust emergency backup power solution like the one the City has in place today. The devastation caused back then was so vast that when Katrina hit the New Orleans region, the City of Gretna experienced wind speeds in excess of 120 MPH. As a result of the hurricane, the city saw its potable water plant, wastewater treatment plant and network of fourteen sewer lift stations go completely without electrical power, bringing down the entire system which operates and controls the potable water supply and sewer system serving over 17,700 residents.

Due to area flooding, wind damage and generator failures, 75% to 100% of the city's water and sewer system was down for more than four days. Working 16 to 20-hour days the Public Utilities Division team managed to restore service after a very trying week and half. "The wastewater plant went down

and the master lift station generator failed, but we didn't find out about these failures until the storm had passed," recalled Mike Baudoin, Director of Public Utilities for the City of Gretna.

"I know what it's like to experience a true catastrophe," noted Baudoin whose own home was totally destroyed by the hurricane. "People can't come back to their homes unless we have city infrastructure up and running. In the hurricane's aftermath, both our wastewater plant generator and the 250 kW generator for the master lift station were found to be under-sized and aged, requiring upgraded solutions."

Utilizing a \$1.8 million Mitigation Funding Block Grant that was approved by the State of Louisiana and FEMA, the City of Gretna contracted engineering firm Burk-Kleinpeter Inc. (BKI) to upgrade and modernize the pump stations. This included designing a cost-effective emergency backup electrical power solution that could be easily managed by the four-person Public Utilities sewer collection department.

According to Bart Mullis, Associate-Electrical Engineer for BKI, the fact that the City of Gretna is a small municipality with a modest budget necessitated design of an emergency backup power solution that could be

easily and quickly connected without reliance on electricians.

"For wastewater facilities, backup generators serve the purpose of maintaining a safe flow of wastewater (sewage) not associated with flood control," explained Mullis. "In this case, because of the City of Gretna's limited resources and very small staff, we decided it would be best for our client to rely on quick-connect portable generators which eliminates the cost of permanently installed generators. That's why we specified the Storm-Switch™ manual power transfer switch system from ESL Power Systems which is shipped pre-wired for very quick installation."

Burk-Kleinpeter's scope of deliverables for the City of Gretna encompassed significant improvements and upgrades to the electrical infrastructure for the wastewater treatment plant. An important part of the project included replacing one failed permanent generator and installing a second generator for redundant power at the two primary lift station facilities. A critical design choice was adding ESL's manual transfer switch to eleven sewer lift station pump sites and to the raw water intake location.

Mullis noted that BKI had previously worked with ESL Power Systems for seaport/shipyards electrical power projects. When he contacted them about the City of Gretna project, Mullis emphasized the need for a very cost-effective manual transfer switch system that delivered fool-proof operation without the need





for a professional electrician or extensive employee training. Because very basic training is required to operate ESL's emergency backup power connection equipment once installed by a certified electrician, the product provided an ideal solution.

"Our experience with ESL has been consistently good and dependable," said Mullis. "We selected their quick-connect transfer switch unit for this project because of its ease of operation – which provides standardization across all lift station locations. It is also very cost-effective – we found the separate pieces alone cost more than ESL's complete pre-wired system."

According to Mullis, the ESL product provided an ideal off-the-shelf solution while eliminating the added costs for a custom-engineered system. "The StormSwitch unit allows City of Gretna workers to easily add emergency generator backup power to numerous pumping system locations needing different amperages, while at the same time meeting the UL1008 standard with a robust NEMA-3R-rated enclosure and complying with National Electrical Code® Article 702 requirements for optional standby systems," said Mullis.

According to Tom Zinchuk, Manager of Engineering for ESL Power Systems, the StormSwitch™ solution is a fraction of the cost of a permanent onsite back-up power generator system. "The use of portable back-up power generators is growing quickly in answer to natural disasters that have led to long-term power outages," said Zinchuk.

Baudoin's advice after rebuilding the City of Gretna's wastewater facilities is simple, "You can never have enough backup systems." ■



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# Top of Mind



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## USA Midwest

### Field Service Power Generation Technician/Mechanic

Cummins NPower LLC

Location: Chicago, IL

- Travel to and from customers' sites to diagnose, troubleshoot and repair of electrical generator systems and related engine failures, and utility transfer switches and switchgears
- Travel to and from customers' sites to perform Planned Maintenance Agreement services and inspections
- Travel to and from customers' sites to perform Start-up and new genset commissioning.

To apply: Please go to our website to learn more at [www.cumminsnpower.com](http://www.cumminsnpower.com)

Application Deadline: 2013-01-01

## USA National

### Industrial Sales Account Representative

Volvo Penta

Location: Chesapeake, VA

This position can be located in multiple cities or states.

- Establish and maintain Industrial distribution accounts in the Area of Responsibility (AOR)
- Assist distributors in establishing dealers as "Sub-Dealers" in the Volvo Penta system.
- Pursue sales of Volvo Penta Industrial products in the AOR.
- Provide training on Volvo Penta warranty procedures.
- Ability to read engineering drawings and interpret.
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Application Deadline: 2012-12-07

## USA Northeast

### Field Service Power Generation Technician/Mechanic

Cummins NPower LLC

Location: North Dakota

Positions available in Williston, Dickinson, Bismarck, Minot, North Dakota. Join us as we grow in North Dakota!

To apply:

Please apply online: [www.cumminsnpower.com](http://www.cumminsnpower.com)

Application Deadline: 2013-01-01

### Generator Technicians

DynaTech Power

Location: Lebanon, PA

Would you enjoy joining a supportive team of generator technicians and chart a career path in the growing industry of backup power? DynaTech is a privately owned fast growing company serving Pennsylvania with a strong culture focused on winning as a team. Learn more at [www.dynagen.com](http://www.dynagen.com). EGSA Certified Technicians Preferred.

To apply: [chad.deitrich@dynagen.com](mailto:chad.deitrich@dynagen.com)

### EGSA Job Bank Guidelines

EGSA will advertise (free of charge) EGSA Member company job openings in the Job Bank. Free use of the Job Bank is strictly limited to companies advertising for positions available within their own firms. Companies who are not members of EGSA and third-party employment service firms who service our industry may utilize the Job Bank for a \$300 fee. Blind box ads using the EGSA Job Bank address are available upon request; company logos may be included for an additional fee. EGSA reserves the right to refuse any advertisement it deems inappropriate to the publication. To post an EGSA Job Bank ad (limited to approximately 50 words) please visit [www.EGSA.org/Careers.aspx](http://www.EGSA.org/Careers.aspx).

### Generator Technicians

Kinsley Power Systems

Location: Northeast/New England/New York

Kinsley Power Systems is looking for quality Field Service Technicians for our East Granby, CT, Buffalo, Syracuse, Albany & Bedford Hills, NY locations. This is an hourly, non-exempt position reporting to the Field Service Supervisor and Operations Manager, responsible for completing preventive maintenance, repairs and service on standby power generation equipment. Three or more years of previous hands-on service experience working on 8.5 kW - 2,500 kW generators preferred. EGSA Certified Technicians Preferred.

To apply: send resumes to: [LBarnes@kinsley-group.com](mailto:LBarnes@kinsley-group.com)

### Business Development Manager

Kinsley Power Systems

Location: Greater New York City Area (Bedford Hills, NY)

A technical sales position which will be responsible for prospecting and driving revenue in the market. The successful candidate should have a solid understanding of the construction electrical market with a particular emphasis on the engineering community's specification writing activities, and preferably have an Electrical Engineering background with experience working with engineers and project managers (as well as contractors and other procurement arms) in the territory.

To apply: [LBarnes@kinsley-group.com](mailto:LBarnes@kinsley-group.com)

### Director of Industrial Sales

Kinsley Power Systems

Location: Hartford, CT

The Director of Industrial Sales is a key contributor to the continued growth of Kinsley Power Systems. This position requires the successful candidate to create & implement a sales plan to exceed budgeted revenue goals, and manage some select key/strategic accounts directly, and actively manage a staff of outside sales engineers to maximize revenue/earnings while embracing the Company's core values and driving sales force effectiveness along with utilizing a solid analytics competency and CRM expertise.

To apply: [LBarnes@kinsley-group.com](mailto:LBarnes@kinsley-group.com)

### Field Service Technicians (Diesel & Gas)

Kinsley Power Systems

Location: CT, NY, MA, NH, VT, ME, NJ, PA, RI

Kinsley Power Systems is seeking experienced generator technicians throughout the Northeast. This position is responsible for completing preventive maintenance, repairs and service on standby power generation equipment. Due to the nature of the service business Field Service Technicians must reside within 25 miles of the available territory and have a clean driving record.

To apply: [LBarnes@kinsley-group.com](mailto:LBarnes@kinsley-group.com)

### Generator Technician

Professional Engine Systems Inc

Location: Canfield OH

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- Paid Holidays

To apply: 1-800-347-4920 or [admin@proengine.com](mailto:admin@proengine.com)

Application Deadline: 2012-12-23

### Project Manager

Western Branch Diesel

Location: Manassas, VA

Western Branch Diesel, Inc. is seeking an experienced Project Manager in the Power Generation Industry to work out of our Manassas, VA office. The ideal candidate will organize, schedule, coordinate, purchase, communicate and lead others to finalize projects according to strict deadlines and within budget. This position will also be responsible for project coordination between our sales, service, and parts departments and will involve travel for projects located both locally and nationally.

To apply: Send resume along with salary requirements to [jmalcolm@wb diesel.com](mailto:jmalcolm@wb diesel.com) or mail to 12011 Balls Ford Road, Manassas, VA 20109 (Attn: James Malcolm).

## USA Northwest

### Senior Generator Technicians

Leete Generators

Location: Santa Rosa

Want 3 day weekends and work in Wine Country?

Leete Generators is looking for a Senior Generator Technician.

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EGSA Certified Technicians Preferred.

To apply: Read our extensive job posting on [www.leeteGenerators.com](http://www.leeteGenerators.com). Send resume and cover letter to

[info@leeteGenerators.com](mailto:info@leeteGenerators.com)

## USA Southeast

### Service Manager / Field Technician

A&A Power Generators

Location: Miami, FL

A&A Power Generators, Located in Miami, FL. has an immediate opening for an experienced service manager and field technician. Must have at least 3 years of experience working with diesel and gaseous generators. A clean driving record is a must. Must be able to troubleshoot, service, and repair. Must speak English. Email resume highlighting skills and experience to [service@aapower.com](mailto:service@aapower.com).

EGSA Certified Technicians Preferred.

To apply: [service@aapower.com](mailto:service@aapower.com) or call 305 477 7969

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### Switchgear Design Engineer

Industrial Power Systems, Inc.

Location: Jacksonville, FL

Industrial Power Systems provides custom electrical controls, switchgear and innovative new approaches to solutions for industrial and marine applications. Growth opportunity in an employee-oriented company.

Responsibilities included design and development of unique custom switchgear utilizing industry standard communication protocols to multiple PLC's, protective relays and third party devices.

BSEE and minimum 3 years designing switchgear with a solid understanding of low and medium voltage design standards and applications required.

To apply: [amberb804@gmail.com](mailto:amberb804@gmail.com)

Application Deadline: 2012-12-31

### Marine Switchgear Design Engineer

Industrial Power Systems, Inc.

Location: Jacksonville, FL

IPS provides custom electrical controls, switchgear and innovative new approaches to solutions for industrial and marine applications. This is a growing, employee-oriented company.

Responsibilities include design and development of unique custom switchgear utilizing industry standard communication protocols to multiple PLC's, protective relays and third party devices.

BSEE and 3 years designing low voltage switchgear and experience with generator controls, both stand-alone and multiple generators in parallel on an isolated bus is required.

To apply: [amberb804@gmail.com](mailto:amberb804@gmail.com)

### Inside Sales

Nixon Power Services

Location: Charlotte, NC

Nixon Power Services has immediate openings for an Inside sales professional in our Charlotte, NC location. The Inside Sales position is responsible for new products sales, aspects of new unit start-up, and pre- and post-sale customer relations. A Bachelor's degree or two to five years related experience; or combination of both is desired. Competitive compensation and benefit package offered. Clean driving record required.

To apply: Please fax resume to 615.309.5893 or email to [resumes@nixonpower.com](mailto:resumes@nixonpower.com)

### Residential Generator Sales

Nixon Power Services

Location: Georgia

Nixon Power Services has an immediate opening for a residential salesperson who is responsible for residential generator products sales, including all aspects of new unit start-up, and pre- and post-sale customer relations. A 4 year degree or equivalent experience is preferred and previous residential generator sales and technical experience is highly desired. We offer competitive wages and benefits.

To apply: Send resume to [resumes@nixonpower.com](mailto:resumes@nixonpower.com) or fax to 615.309.5839

### Outside Sales

Nixon Power Services

Location: North Carolina Territory

Nixon Power Services has an immediate need for an Outside Sales Professional in the Greensboro/Winston Sales area. The Outside Sales position is responsible for products sales, aspects of new unit start-up, and pre- and post-sale customer relations. A bachelor's degree and/or two to five years' related experience preferred. Previous generator sales and technical experience strongly desired. Clean driving record is required. Applicant must be willing to travel extensively. Nixon offers competitive compensation and benefits.

To apply: Please fax resume to 615.309.5839 or email to [resumes@nixonpower.com](mailto:resumes@nixonpower.com)

### USA Southwest

#### Senior Service Technician

Generators of Texas

Location: Houston, TX

Immediate openings for experienced Generator Technicians. Applicants must have Experience with Diesel & Natural Gas Engines and transfer switch knowledge. We offer a strong base wage and a full benefit package and PAID RELOCATION depending on experience and skill set. EGSA Certified Technicians Preferred.

To apply: Email resume to

[lgiddens@generatorsoftexas.com](mailto:lgiddens@generatorsoftexas.com) or apply online at

[www.generatorsofhouston.com/employ1.php](http://www.generatorsofhouston.com/employ1.php).

Application Deadline: 2012-11-15

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## INDUSTRY NEWS

### Ring Power Board of Directors Elects New Executive Vice President and Two Vice Presidents

Ring Power Corporation Chairman and President Randal L. Ringhaver and the Board of Directors recently announced the election of David Alban as Executive Vice President – Sales and Corporate Secretary. The board also appointed new officers Alex Posson as Vice President – Director of Human Resources and Steve Gambill as Vice President – Power Systems Product Support.

In his new role as Executive Vice President - Sales, Alban will have responsibility for several Ring Power divisions including: New and Used Heavy Equipment, Cat® equipment rentals, International, Crane and Lift Trucks. In an effort to efficiently grow our business and enhance our customers' satisfaction in all areas, Alban will work closely with the senior-vice presidents of these divisions on a daily basis.



In 2001, Alban began his Ring Power career in the Sales Training Program, spending time working in the service shops, learning firsthand what happens day-to-day. Alban also worked in the Heavy Equipment Rental department before moving into Sales.

He earned his first managerial role in 2002, leading the newly launched Agricultural Equipment division.

In 2004, when the Six Sigma initiative began, Alban was selected as a project leader. Alban was then promoted to General Service Manager of Heavy Equipment for the northern half of Ring Power's Cat territory. Since 2009 Alban had served as Vice President and Corporate Secretary. In 2011, Alban took on additional responsibility, serving as Vice President of Power Systems Product Support.

Newly appointed Vice President – Director of Human Resources Alex Posson joined Ring Power



in March as Human Resources Manager. Prior to joining Ring Power, she served as the Employee Relations Specialist at H. Lee Moffitt Cancer Center in Tampa, FL. Posson is a graduate of the University of Florida and Florida Coastal School of Law.

Taking over for David Alban as Vice President – Power Systems Product Support, Steve Gambill joined Ring Power in 1994 as a Marine Field Service Technician and worked his way up to assistant Power Systems Service Manager, Jacksonville branch Power Systems Service Manager and, most recently, marine services Operations Manager. Gambill brings 27 years of experience to Power Systems' service operations along with the insight he has gained as a "green belt" on numerous Six Sigma projects.

Visit [www.ringpower.com](http://www.ringpower.com) more information. ■



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## INDUSTRY NEWS

### Cummins Power Generation Announces Educational Website for Information in Preparation for Tier 4 Interim Standards

Cummins Power Generation Inc., a division of Cummins Inc., announced today the company launched a new website dedicated to those seeking additional information in preparation for the Environmental Protection Agency's (EPA) Tier 4 interim (Tier 4i) guidelines.

The new website, [www.tier4answers.com](http://www.tier4answers.com), is filled with numerous educational tools, including a variety of white papers addressing issues such as: what Tier 4 means to operators of large, stationary gensets, diesel-powered generating systems and emergency standby power systems. It also contains blogs from experts in the field of power generation, informational brochures, and an animated video titled "Tier 4 Aftertreatment — How It Works" and a four-page Q&A.

"Many organizations that rely on large stationary generators for backup and prime power uses still have questions about the EPA's Tier 4 regulations," said Ananth Parameswaran, Director — Power Systems and Global Marketing. "The goal of [www.tier4answers.com](http://www.tier4answers.com) is to become the single source of information that companies need in preparation to meet the EPA's emissions standards."

In addition, the EPA mandates that all non-emergency applications are Tier 4i certified. But, in certain locations, the local ordinances may require that emergency backup generators also adhere to stricter emissions limits. Additional information about these more stringent emissions regulations can also be found at [www.tier4answers.com](http://www.tier4answers.com). ■

### Foley, Incorporated Announces Changes To Construction Service Department

Joe Dugan, General Service Manager of Foley, Incorporated has announced two recent promotions within the Construction Service Department. Pete Policastro has been promoted to Construction Service Shop Manager replacing Pete Foerst upon his retirement in late September. Felix



Adrian has been promoted to Construction Service Shop Foreman, replacing Pete Policastro.

As Construction Service Shop Manager, Pete Policastro will be handling all day-to-day Construction Shop operations, reporting to Dugan. With more than 25 years of experience in Caterpillar Service, Pete started his career in the Foley Construction Shop, advancing to an "A" rate technician within 3 years. He contributed to the growth of the company's Paving business as a Foley Paving Specialist and eventually became a Lead Man in the Shop. For the past 6 years, Policastro has been working in the Service Department as the Construction Shop Foreman. Dugan states, "Pete's performance has changed our customers' perception of our Service Department. He is extremely customer-focused and a great asset as Foley strives to create customer experiences that create customers for life."

Felix Adrian has more than 12 years of Service experience with Caterpillar equipment and On Highway Caterpillar engines. As Construction Service Shop Foreman, Adrian will be running all daily Service Operations in the Main Construction Shop. Having started his career in the Foley Lift Division as a "D" rate technician, he reached level "A" rate technician in the CCE Construction Department within five years. In 2007 he became a Service Writer for the On Highway Division and most recently has been holding the position of On Highway Service Foreman. "Felix's commitment to customer service goes above and beyond," states Joe Dugan, "He will be a great fit within our Construction Service Team, further strengthening our ability to deliver superior service to our customers."

Both Policastro and Adrian have recently graduated from Caterpillar's "Flagship Management Program" this year, providing them with even greater management skills and arming them with customer-driven solutions as they take on their new roles within the Foley Service Team.

For more information please visit [www.foleyinc.com](http://www.foleyinc.com). ■

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## Governors America Corp. appoints Director of Engineering

Governors America Corp., a Massachusetts-based engine and system controls' company, announced the hiring of Dr. Yasser Eldeeb as the company's Director of Engineering and Kurt Wagner as the company's Director of Operations.

Eldeeb has more than 15 years of experience in engineering mainly in precision machine actuator design, speed and engine control systems, embedded real-time code and software development, sensor application and electronics overall. This experience includes top leadership positions in manufacturing, engineering and technology development. Eldeeb previously worked at industry-leading companies such as Gerber Scientific International, Inc, and GM of Canada. He received his Ph.D. (Systems Engineering) from University of Windsor.

"Yasser will be an asset to GAC's digital controls, actuator developments, and



gaseous fuel systems programs moving forward. With his outstanding experience and technical capability, he will push GAC to meet and exceed any technical challenges that we might face in the future. Heading up a strong engineering team, Yasser's role will accelerate our next generation of products, and we are looking forward to have him on board," said Sean Collins, President.

"GAC has long been a leader in governing innovation, and one of the few companies that truly understands the power and potential of digital governing. I look forward to joining a talented team to continue to deliver great quality products to the power generation and other markets around the world", as stated by Eldeeb.

Mr. Wagner has more than 25 years of experience in Aerospace Operations and Engineering. This experience includes top leadership positions in operations most recently at Pratt & Whitney in



Middletown, CT. Mr. Wagner completed his BS degree in Aeronautical Studies at Embry-Riddle Aeronautical University in Daytona Beach, FL.

"Kurt's primary role is to direct and lead our production and technical support staff as we increase our production capacity, execute our quality processes and improve our product support activities for the expanding and existing product lines worldwide," said Sean Collins, President.

"As GAC's Director of Operations, my job will be to consistently deliver quality products and services to customers", said by Wagner. "I enjoy a challenge, particularly in addressing issues that come from high growth companies with demanding customers that operate equipment that cannot afford poor quality or untimely execution. Essentially, meet on time demands each month and work on the necessary support and services infrastructure in place to support them."

Visit [www.governors-america.com](http://www.governors-america.com) for more information. ■



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## Doosan Portable Power Names Roland Machinery Company New Dealer

Doosan Portable Power has named Roland Machinery Company, headquartered in Springfield, IL, an authorized dealer of portable and utility mount air compressors, generators, lighting systems and light compaction equipment. In addition to their corporate office, Roland Machinery also has 14 additional full-service facilities located in five Midwestern states.

Roland Machinery Company was founded by E. Earl Roland in 1958 as a construction equipment dealer serving Central Illinois. During the next quarter century, the company added several manufacturers to extend their equipment line offerings to an expanding customer base. Today, Roland Machinery serves many related industries including earth moving, sewer, highway construction and demolition, quarry, mining scrap metal and steel, forestry, pipeline, industrial and agricultural markets.

"The Doosan product line fits nicely within the many market segments we serve," said Matt Roland, President. "The partnership with Doosan Portable Power complements our already premier line of equipment offerings, while filling an important niche that allows us to better serve our loyal customer base."

Roland Machinery will distribute Doosan portable and utility mount air compressors, generators, lighting systems and light compaction equipment across a territory that includes 58 counties in Central and Eastern Missouri and 24 Southern Illinois counties. The company is also authorized to distribute Doosan portable air compressors, lighting systems, utility mount air compressors and light com-

paction equipment throughout the entire state of Wisconsin and 15 counties within the Upper Peninsula region of Michigan.

"Our new dealer relationship with Roland Machinery greatly enhances the synergy of Doosan equipment offerings throughout the core regions of the Upper and Central Midwest," said Rita Moore, Director of Sales, North America, Doosan Portable Power. "Roland Machinery is a customer-focused company that has been

in business for more than a half century, and understands the needs of contractors involved in many different markets. We look forward to a long and collaborative partnership with them and the opportunity to expand access to Doosan compressors and lighting systems throughout this region of the country."

For more information, please visit [doosanportablepower.com](http://doosanportablepower.com). ■



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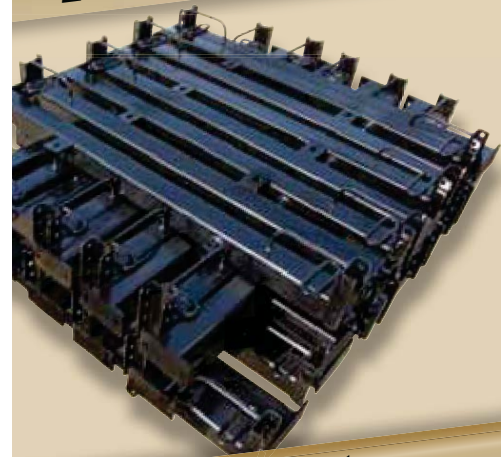
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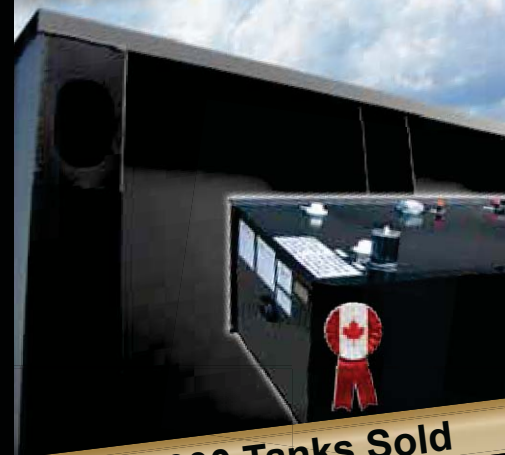
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103 Employees – \$25,284,000 Sales

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